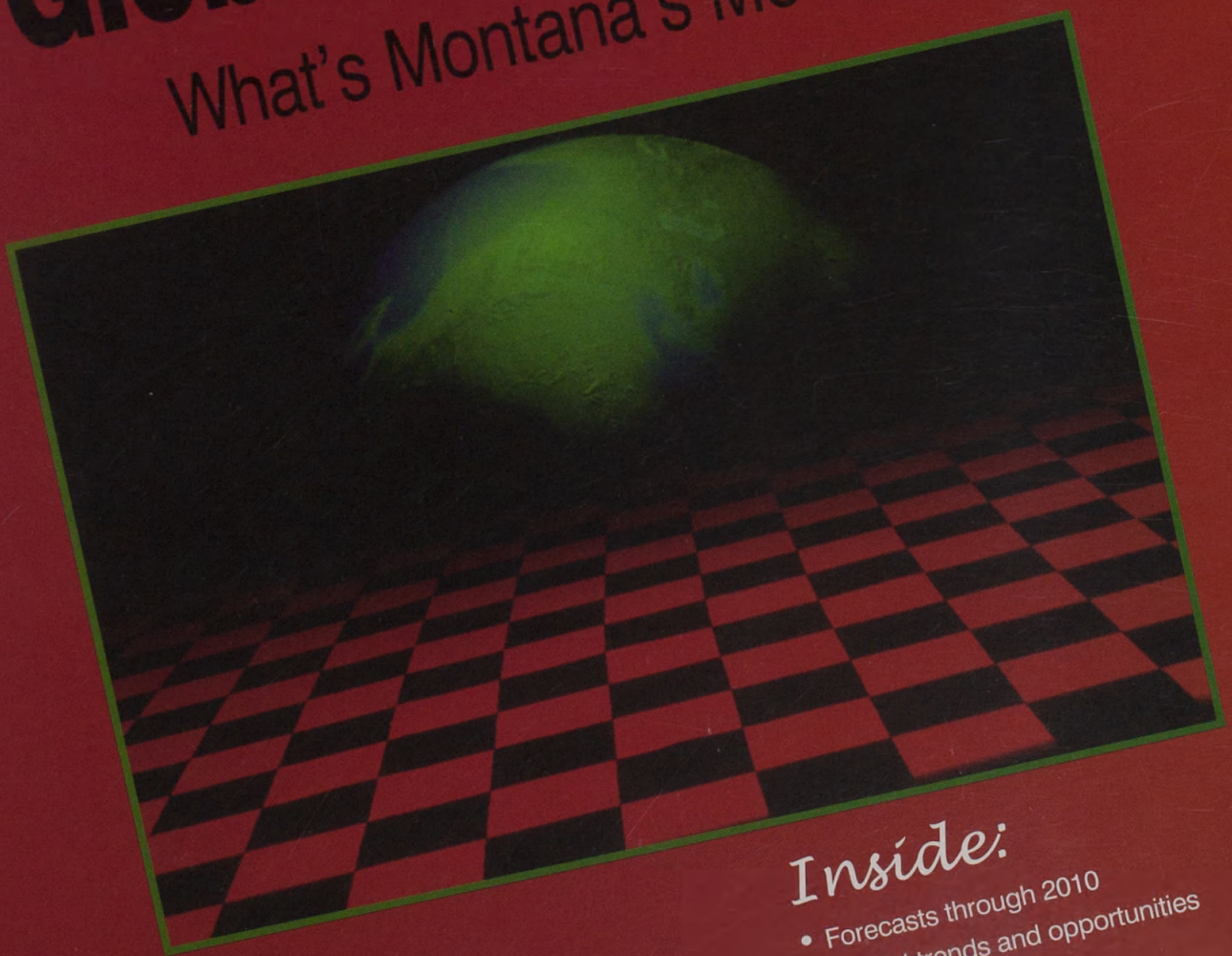
Montana Business Quarterly

VOLUME 36 NUMBER 1 SPRING 1998

Global Strategies

What's Montana's Move?



Inside:

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Montana Business Quarterly

The *Montana Business Quarterly* (ISSN 0026-9921) is published four times a year by the Bureau of Business and Economic Research, and is a service of The University of Montana-Missoula. The subscription rates for the *Quarterly* are $30.00 per year, $55.00 for two years, $75.00 for three years, and $6.00 per issue. Second class postage paid at Missoula, MT 59812. POSTMASTER: Send address changes to the *Montana Business Quarterly*, Bureau of Business and Economic Research, The University of Montana, Missoula, MT 59812.

The *Montana Business Quarterly* is available on microfilm from University Microfilms, 300 N. Zeeb Rd., Ann Arbor, MI 49106.

Reprints of the articles are not available but additional copies of the *Quarterly* can be secured at $6.00 per copy.

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This issue was adapted from the proceedings of the 23rd Annual Montana Economic Outlook Seminar.

Correction: In the Winter 1997 Montana Business Quarterly, *the top chart on page 7 was incorrectly shaded. The chart should have illustrated that annual forest harvest is* **less** *than the net growth of new wood.*

Global Strategies

What's Montana's Move?

By Paul E. Polzin

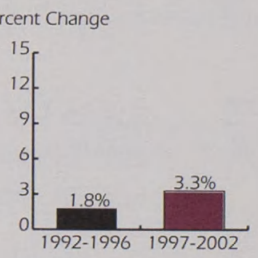
As the 21st century draws near, the world is experiencing rapid economic and population growth, especially in developing areas such as China, Latin America, and the former Soviet Union. While developing countries struggle to meet the needs of their expanding populations, demand for basic commodities will rise, and Montana businesses and industries will find new opportunities in the global marketplace.

This article examines global trends and the resulting opportunities and risks for Montana businesses in the world market.

Global Growth

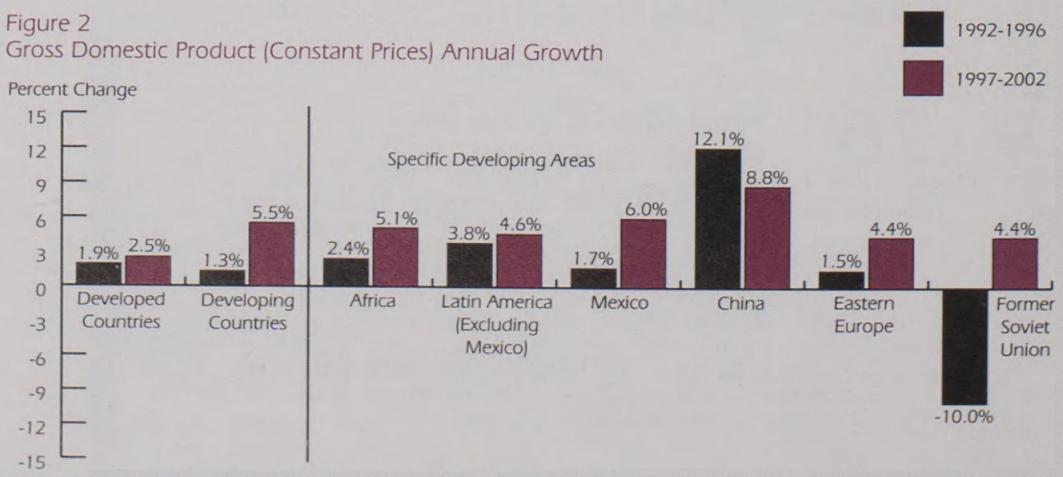
Over the next five years, world economic growth will accelerate from about 1.8 percent per year between 1992 and 1996 to about 3.3 percent per year between 1997 and 2002 (Figure 1). While the economies in developed countries such as Japan, Western Europe, and the United States will grow steadily, the economies in developing countries will experience remarkable growth (Figure 2).

Figure 1
World Gross Domestic Product (Constant Prices)
Actual and Projected Annual Growth



Source: The WEFA Group.

Figure 2
Gross Domestic Product (Constant Prices) Annual Growth



Source: The WEFA Group.

Some of the fastest-growing areas are Africa, China, Mexico, Eastern Europe, and the former Soviet Union. In the next five years, Africa will double its growth, from 2.4 percent to 5.1 percent per year. China will experience almost 9.0 percent growth, which is actually a decrease from the unsustainable 12 percent growth that occurred from 1992 to 1996. Mexico will jump from 1.5 percent to 4.4 percent per year and Eastern Europe and the former Soviet Union will each see a respectable 4.4 percent growth.

Reasons for the rapid growth in low-income areas are:

- The demise of the Soviet Union. As the burden of central planning is removed and military expenditures decrease, the economy will improve.
- Increased political stability worldwide, especially in Africa.
- Increased emphasis on market economies, particularly in China and Latin America.

How will this economic growth affect the world economy? One way to look at it is to examine the composition of world trade and the prices of traded commodities. Overall, the volume of worldwide exports will continue to grow, representing continued internationalization of the world economy (Figure 3). The composition of trade will change, though. Primary commodities, fuel, and energy will accelerate, while manufactured goods will decelerate. Likewise, the prices of primary commodities will accelerate more than manufactured goods, reflecting the faster demand growth from low-income countries (Figure 4).

Economic growth in the next five years will be more like it was 50 years ago, rather than it was five years ago. The fastest-growing countries will be those early in the industrialization process. Therefore, the fastest-growing commodities will be simple, basic items, rather than sophisticated complex items.

As these low-income countries grow, the demand for fuel and energy will increase. As the economies in China and Vietnam improve, for example, manufacturers will produce more automobiles. Chances are, these vehicles will not be fuel-efficient luxury cars. They will probably be the more basic, functional cars and gas guzzling trucks. Similarly, the new factories in China and Vietnam are likely to use cheaper and energy-intensive production processes and technology. These plants will not be as energy efficient as those in advanced countries and will need increasing supplies of fuel and energy.

Global Trends and the Montana Economy

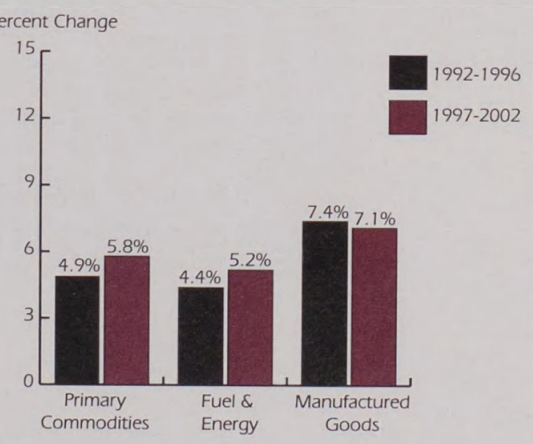
Along with the increased demand for fuel and energy will be an increased demand for food. Currently food accounts for about 60 percent of consumer expenditures in China and about 30 percent in Mexico. As people in developing countries become more prosperous, they will be able to afford more and better food. Improving diets in these countries will lead to disproportionate increases in demand for food and it will be necessary to look to other parts of the world for food supply. As a major grain producer, Montana is already well established in the world market, but may find additional opportunities with the changing world economies.

Agricultural economists have determined that most of the areas slated to accelerate the fastest will probably not be able to increase their food production quickly enough to satisfy growing domestic needs. This is especially true in Asia and Latin America. And it is especially true for countries that rely heavily on grain, which is used for consumer purposes as well as for feed for meat production.

While many of these areas are already important customers for U.S. grain producers, trade may increase even more over the next few years. Five of the top 10 markets for U.S. agricultural exports are in Asia and Latin America. And Montana, which ships most of its grain from Portland, is particularly well situated to serve China and other Northeastern Asia markets.

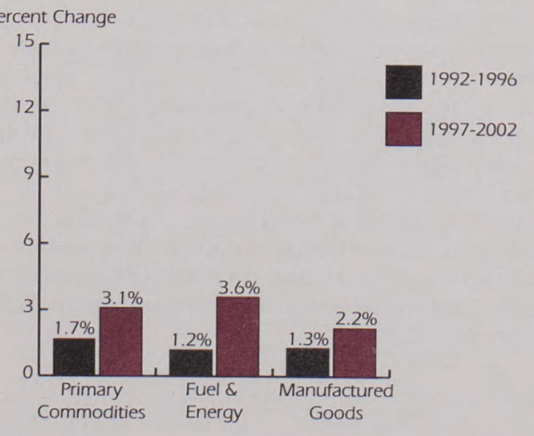
Agriculture is only one of the international opportunities for Montana. A long-time producer of gold, silver, copper, and zinc, Montana may also see an increased worldwide demand for these basic commodities.

Figure 3
Volume of World Exports, Annual Growth



Source: The WEFA Group.

Figure 4
Prices of World Exports, Annual Growth



Source: The WEFA Group.

The Asian Economic Crisis

The Asian financial crisis started in Thailand in mid-1997 and Montana has begun to feel the impacts. Recent layoffs at a high-tech manufacturing firm near Kalispell illustrate the local affects of deteriorating economic conditions in countries such as Korea, Thailand, and Indonesia. Asian markets have an impact on many Montana firms, even the ones that don't sell their products overseas.

While the economic version of the Asian Flu will last longer than the 24-hour variety, it won't drag on forever. However, the Asian economic crisis will likely affect the United States in these ways:

1. U.S. exports to affected countries will drop, causing American economic growth to be slower, with a slight increase in the low probability of an imminent recession.

2. Prices of imports from Asia will fall, placing downward pressure on U.S. prices and inflation, because of the U.S. dollar's strength relative to Asian currencies.

3. Because of the first two impacts, the federal government will not raise interest rates in the near future, and may even lean toward an easing of monetary policy.

4. The United States will become a safe haven for international investors because the U.S. economy will remain strong as Asian economies weaken, further increasing the value of the dollar.

5. The Asian crisis will significantly increase general uncertainty, thereby shifting investors' preferences away from equities and toward bonds.

Potential Opportunities

It is difficult to determine the global strategies appropriate for Montana producers, since each commodity has its own market peculiarities and nuances. As a specific example, the talc industry illustrates the opportunities that global trends offer Montana industries.

Talc is a basic industrial commodity used in a variety of products including ceramics, paints, and insecticides. There are currently two active talc mines located in Southwestern Montana, employing between 125 and 150 workers.

China is the largest talc producer in the world and as the economy grows, more of China's production will be used internally and not exported to the international market. This may raise the price of talc and provide opportunities for other producers, including those located in Montana.

While international trade offers numerous options to Montanans, the following factors should be considered:

1. The long-term impacts of the current economic crisis in Southeast Asia are unknown.

2. Montana is not the only commodity producer in the world. Other countries will also attempt to exploit the market opportunities.

3. Situations could prevent market opportunities from happening. For example, there are serious questions whether China's ports and transportation system can handle the wheat they are projected to require.

4. These opportunities assume free trade. However, anti-free trade legislation is always popular—even in the United States.

5. There are respectable experts who believe that domestic commodity supplies are more readily available in developing areas than previously thought, and increased demand will not result in significant international trade opportunities.

Montana's Growth Stabilizes

Montana's current economic expansion is the longest sustained period of growth in the state's recent history. During the 1990s, Montana's economic growth exceeded 2.0 percent in every year. This decade of uninterrupted growth is a relatively rare occurrence in Montana.

Trends Since 1990

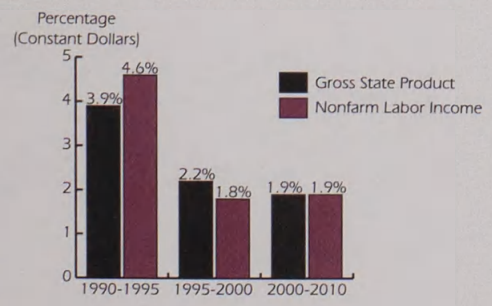
Montana's growth in the 1990s has been a welcome change from the economic doldrums of the 1980s. The early 1990s started out with a bang, with growth rates of 4 to 5 percent in 1992 and 1993 (Figure 1). That rapid growth occurred because of temporary factors such as a construction boom, good agricultural years, and fast growth in high-tech industries and nonresident travel. As these factors subsided, Montana's growth rate slowly declined to the sustainable level of about 2 percent each year (Figure 2).

Montana's economy has slowed in the past couple of years, as has its population growth. During 1997, Montana's population was 879,0000, about the same as it was in 1996. The lack of growth in 1997 was probably a one-year event and economists still expect a population of 920,000 in the year 2000 (Table 1).

Projections

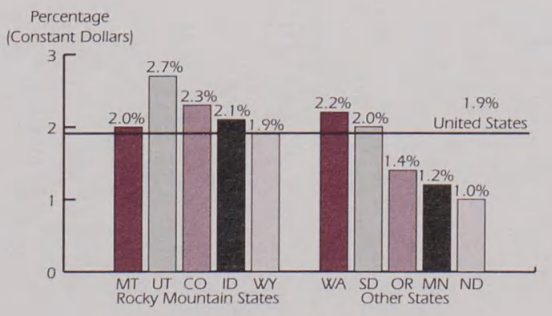
Long-term forecasts to the year 2010 call for Montana's growth to average about 2 percent each year. That rate may seem slow, but it equals or exceeds the rate expected for the United States during that same time period (Figure 3). The Rocky Mountain States—Montana, Idaho, Wyoming, Colorado, and Utah—are projected to grow faster than any other region in the United States because of new firms moving into the mountain areas and growth of basic industries in those states. Montana, Idaho, and Wyoming will

Figure 1
Gross State Product and Nonfarm Labor Income
Annual Growth, Montana, 1990-2010



Source: U.S. Bureau of Economic Analysis, Bureau of Business and Economic Research, The University of Montana-Missoula.

Figure 2
Projected Gross State Products, 1995-2010
Montana, United States, and Selected States, Annual Growth



Source: U.S. Bureau of Economic Analysis.

Table 1
Population, Montana and BEA Regions, 1990-2010

	Thousands of Persons				Average Annual Percent Change		
	Actual		Projected				
	1990	1997	2000	2010	1990-1997	1997-2000	2000-2010
Montana	803	879	920	1,015	1.3	1.5	1.0
West	336	384	400	448	1.9	1.4	1.1
Missoula	79	89	93	107	1.7	1.5	1.4
Flathead	60	72	76	85	2.6	1.8	1.1
Butte-Anaconda	44	45	47	53	0.3	1.4	1.2
Lewis & Clark	48	53	56	63	1.4	1.8	1.5
Rest of West	105	125	128	140	2.5	0.8	0.9
North Central	163	164	172	179	0.1	1.6	0.4
Cascade	78	79	82	84	0.2	1.2	0.2
Rest of N. Central	85	85	90	95	0.0	1.9	0.5
East	304	337	348	388	1.2	1.1	1.1
Yellowstone	114	128	134	155	1.4	1.5	1.5
Gallatin	51	64	68	77	2.6	2.0	0.8
Rest of East	139	145	146	156	0.5	0.2	0.7

Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

experience slower growth than Colorado and Utah, partly because of their distance from major markets.

These projections are optimistic and could be affected by these factors:

1. A national recession may occur, perhaps brought on by the Asian economic crisis.

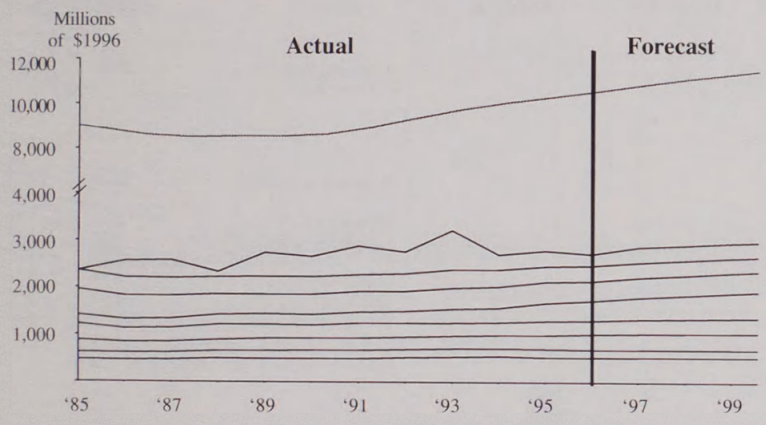
2. Despite the long-term optimism based on global trends, farm income is still vulnerable to short-term factors like drought and insects.

3. The major risk to the wood products industry continues to be the dwindling timber supply from USDA Forest Service land.

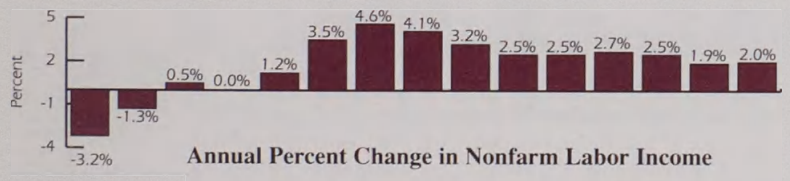
4. Montana's aging industrial plants must continue to deal with environmental regulations, as well as international cost competition.

5. Some small and high-tech manufacturers may find it advantageous to transfer some of their production offshore, perhaps to Asian countries, which offer even more cost savings.

Figure 3
Nonfarm Labor Income and Labor Income in Basic Industries, Montana, 1985-2000

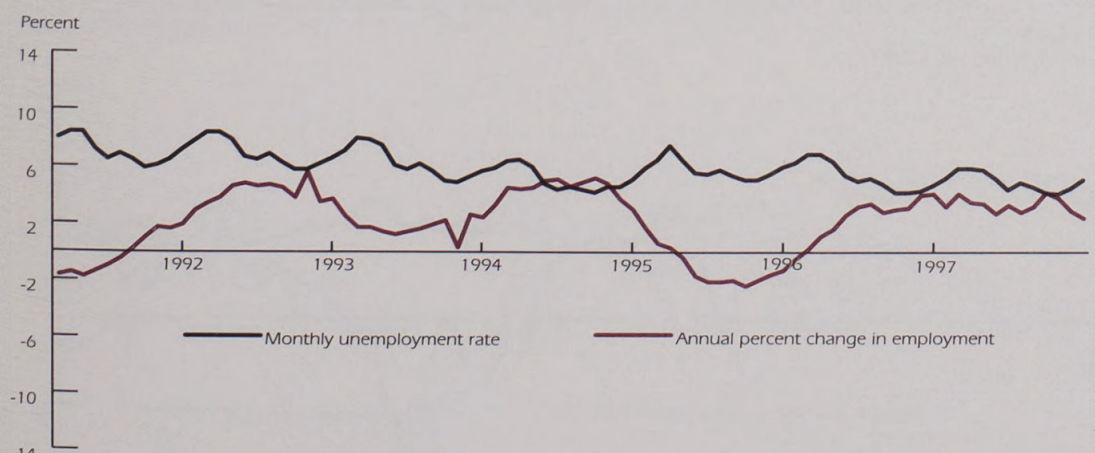


	1996	2000
Nonfarm labor income	**$10,586**	**$11,596**
Basic labor income	**$2,719**	**$2,878**
Agriculture	$246	$314
Wood & paper products	$332	$309
Transportation	$414	$430
Nonresident travel	$420	$456
Mining	$290	$326
Selected manufacturing	$328	$356
Military	$163	$158
Federal government	$527	$529



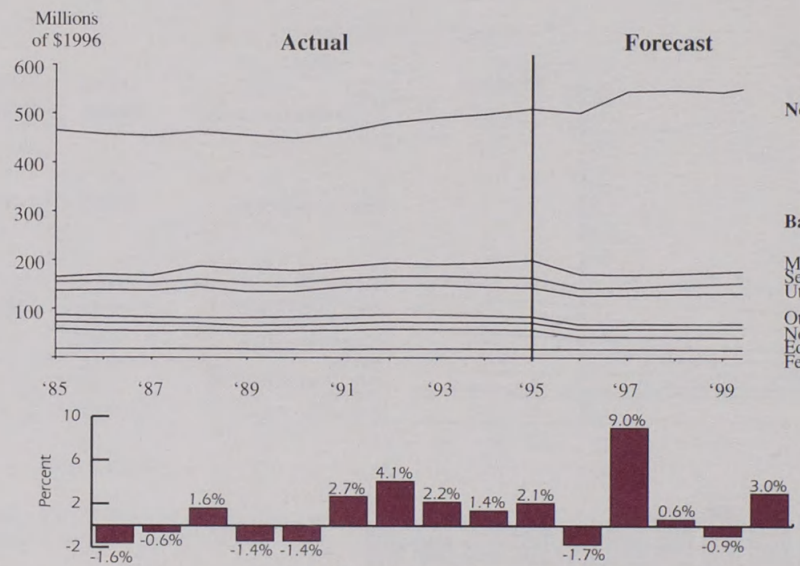
Annual Percent Change in Nonfarm Labor Income

Figure 4
Monthly Unemployment Rate and Change in Monthly Employment in Montana, January 1991-November 1997



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Nonfarm Labor Income and Labor Income in Basic Industries, Butte-Silver Bow and Anaconda-Deer Lodge, 1985-2000



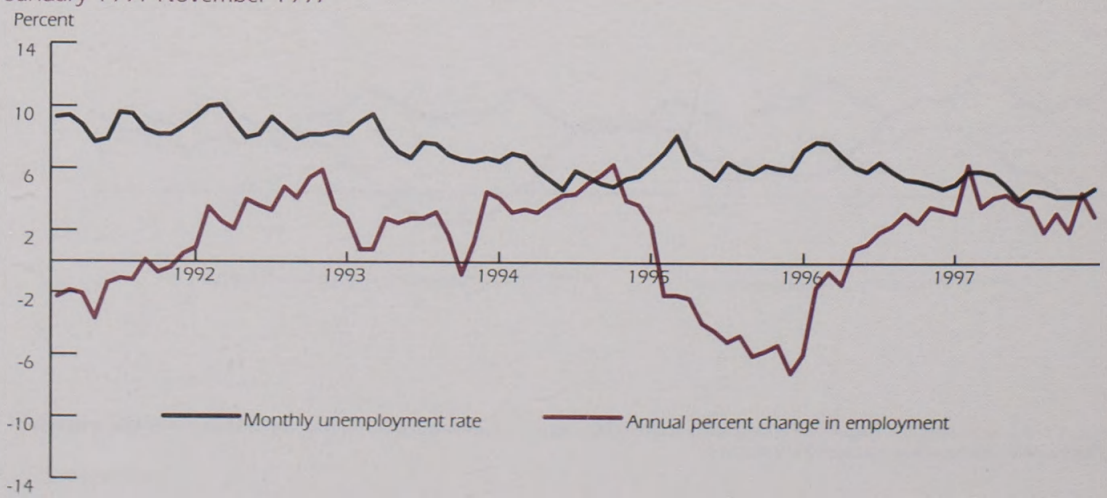
	1996	2000
Nonfarm labor income	**$500**	**$560**
Basic labor income	**$170**	**$178**
Mining	$29	$24
Selected manufacturing	$15	$23
Utility HQ & related	$59	$63
Other basic	$10	$11
Nonresident travel	$15	$16
Education & institutions	$25	$25
Federal government	$17	$16

Annual Percent Change in Nonfarm Labor Income

Outlook for Butte-Silver Bow and Deer Lodge

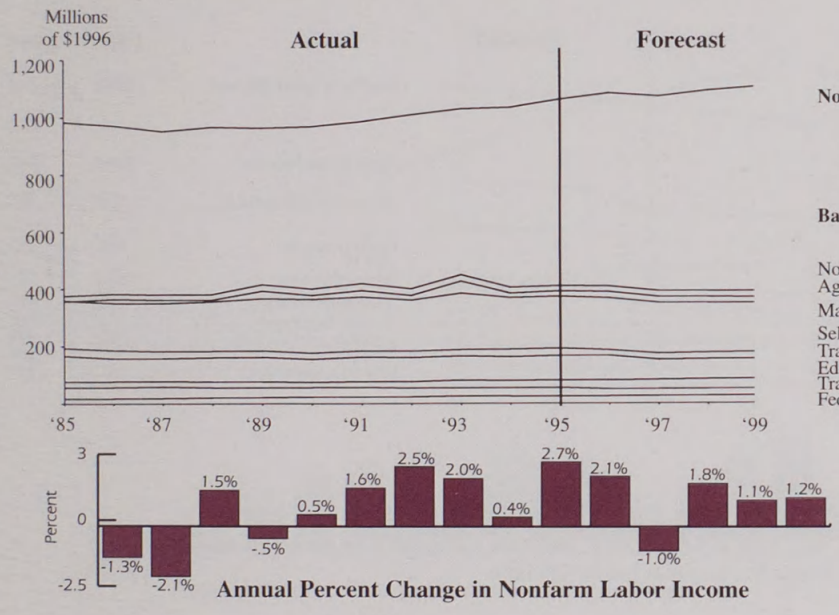
Construction began on Butte's Advanced Silicon plant in 1996 and production will begin in 1998. The projected small growth in 1998 and decline in 1999 reflect the fact that the Advanced Silicon production workforce will be smaller than the construction workforce. The Rhone Poulenc plant (formerly Stauffer Chemical Plant) closed in 1995, eliminating 150 jobs. The monthly employment data show acceleration in 1996 and continued growth to late 1997, probably reflecting the Advanced Silicon construction.

Figure 2
Monthly Unemployment Rate and Change in Monthly Employment in Butte-Silver Bow and Anaconda-Deer Lodge
January 1991-November 1997



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Nonfarm Labor Income and Labor Income in Basic Industries, Cascade County, 1985-2000

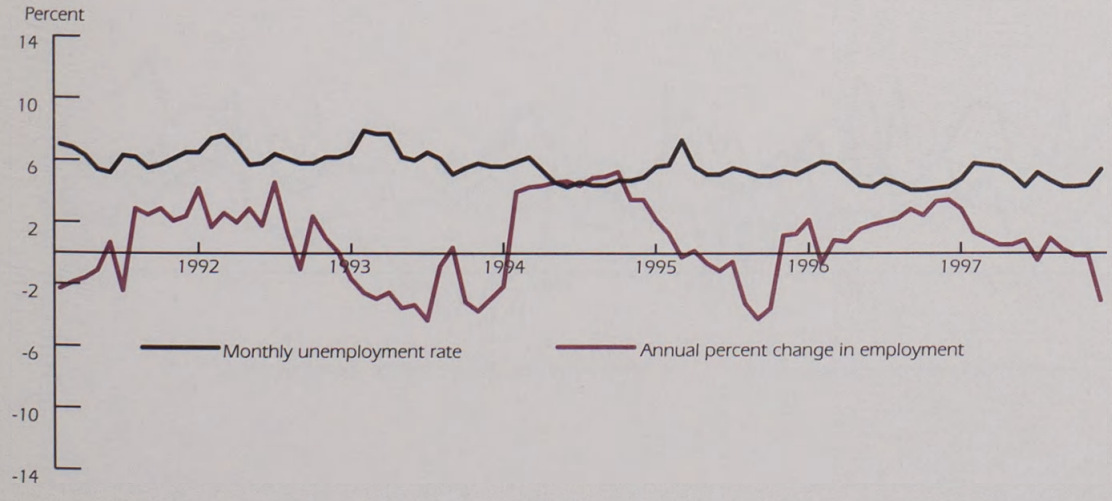


	1996	2000
Nonfarm labor income	**$1,080**	**$1,113**
Basic labor income	**$406**	**$387**
Nonresident travel	$19	$21
Agriculture	$21	$19
Malmstrom Air Base	$180	$167
Selected manufacturing	$20	$23
Trade center activity	$86	$70
Education & other	$31	$36
Transportation	$24	$24
Federal government	$25	$27

Outlook for Cascade County

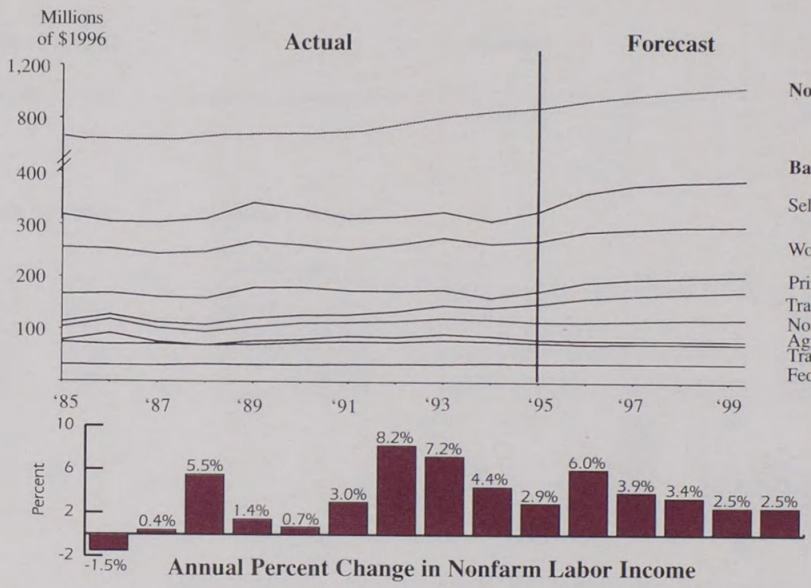
We expect Cascade County's growth to be in the 1 to 2 percent range from 1997 to 2000. Malmstrom Air Force Base appears relatively secure as it takes on new roles in the space program. The long-awaited pasta plant opened in Great Falls during August 1997, but its impact is not discernible in the data. The latest employment data do not suggest acceleration in economic growth as other factors—most likely in the health care and retail trade sectors—counterbalanced the pasta plant's impact on jobs.

Figure 2
Monthly Unemployment Rate and Change in Monthly Employment in Cascade County
January 1991-November 1997



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Nonfarm Labor Income and Labor Income in Basic Industries, Flathead County, 1985-2000

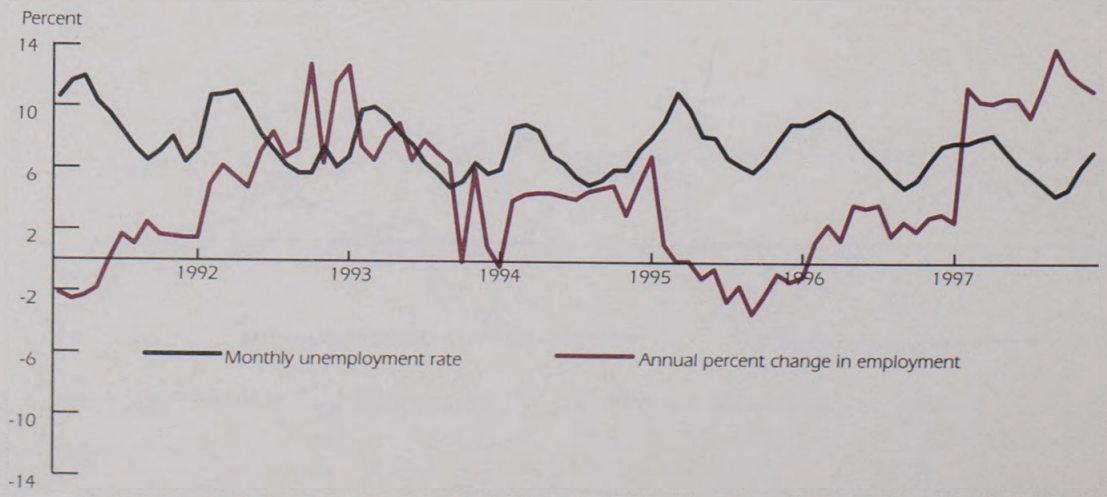


	1996	2000
Nonfarm labor income	**$944**	**$1,067**
Basic labor income	**$363**	**$388**
Selected manufacturing	$74	$88
Wood products	$96	$93
Primary metals	$31	$29
Trade center activity	$45	$56
Nonresident travel	$36	$40
Agriculture and other	$7	$7
Transportation	$37	$38
Federal government	$37	$37

Outlook for Flathead County

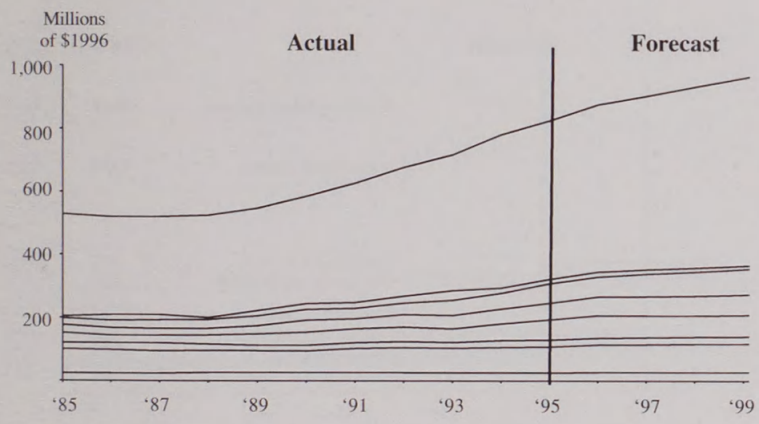
Flathead County's economy experienced rapid and volatile growth in the 1990s. Growth increases exceeded 6 percent in 1992, 1993, and 1996. The intervening years posted figures of 2.9 to 4.4 percent—still much higher than other portions of the state. The forecasts call for average growth to slow to the 2.5 to 3.5 percent range, but the volatility may cause yearly figures to differ from the average. All three manufacturing sectors are relatively secure. The wood products industry is somewhat insulated from federal harvest declines because Plum Creek owns its own timberland, although some independent mills are still at risk. Columbia Falls Aluminum has contracts to the year 2001, and Semitool remains strong. The Columbia Falls Aluminum employee settlement may accelerate growth in the short-run. The latest employment data suggest a significant acceleration in 1997.

Figure 2
Monthly Unemployment Rate and Change in Monthly Employment in Flathead County
January 1991-November 1997

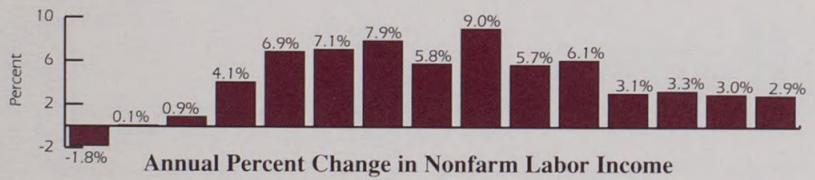


Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Nonfarm Labor Income and Labor Income in Basic Industries, Gallatin County, 1985-2000



	1996	2000
Nonfarm labor income	**$873**	**$986**
Basic labor income	**$345**	**$370**
Agriculture	$15	$10
Trade center activity	$63	$85
Nonresident travel	$59	$65
Selected manufacturing	$72	$69
Mining, rail & other	$22	$23
Montana State University	$87	$90
Federal government	$27	$28

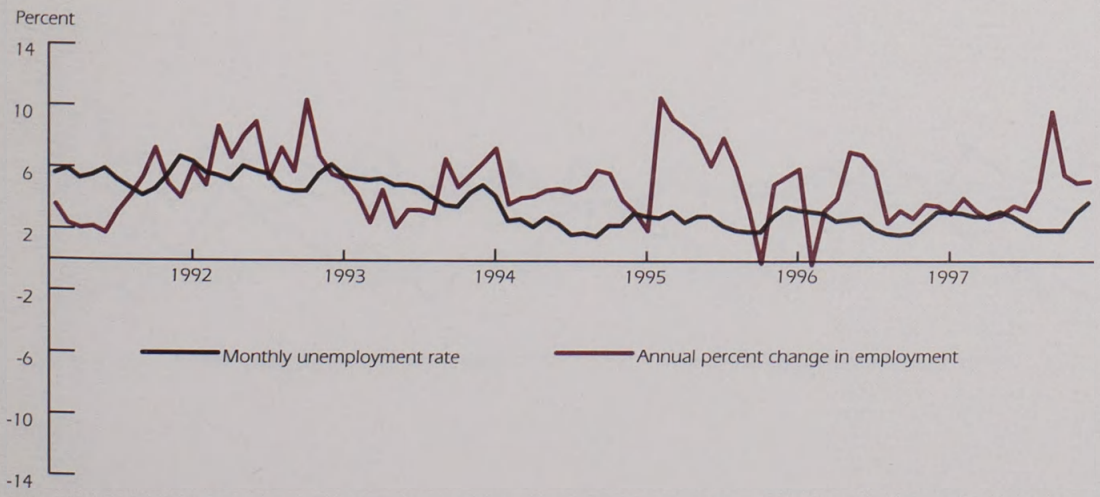


Annual Percent Change in Nonfarm Labor Income

Outlook for Gallatin County

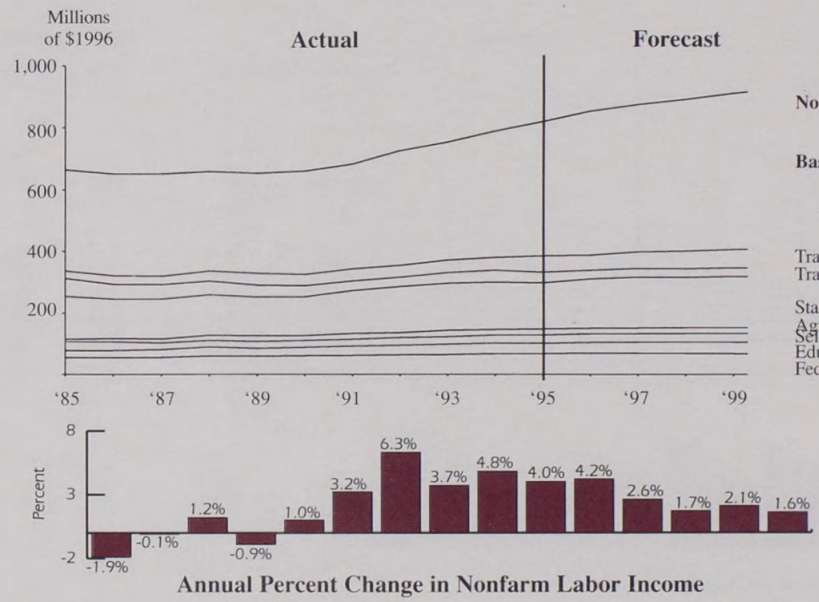
The rapid growth in Gallatin County is projected to moderate. Annual increases of 7 to 9 percent were experienced in the early 1990s, but the corresponding figures for the late 1990s will be about 3 percent per year. A cooling of the construction boom will be a major cause of the decelerating growth rates. The Bozeman area is home to numerous small, high-tech electronic and light manufacturing plants. Most have ceased their rapid expansion, and some are experiencing growing pains. Montana's labor shortage is most obvious in Gallatin County, which shows low unemployment rates. The latest employment data suggest acceleration in growth during 1997.

Figure 2
Monthly Unemployment Rate and Change in Monthly Employment in Gallatin County
January 1991-November 1997



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Nonfarm Labor Income and Labor Income in Basic Industries, Lewis & Clark County, 1985-2000



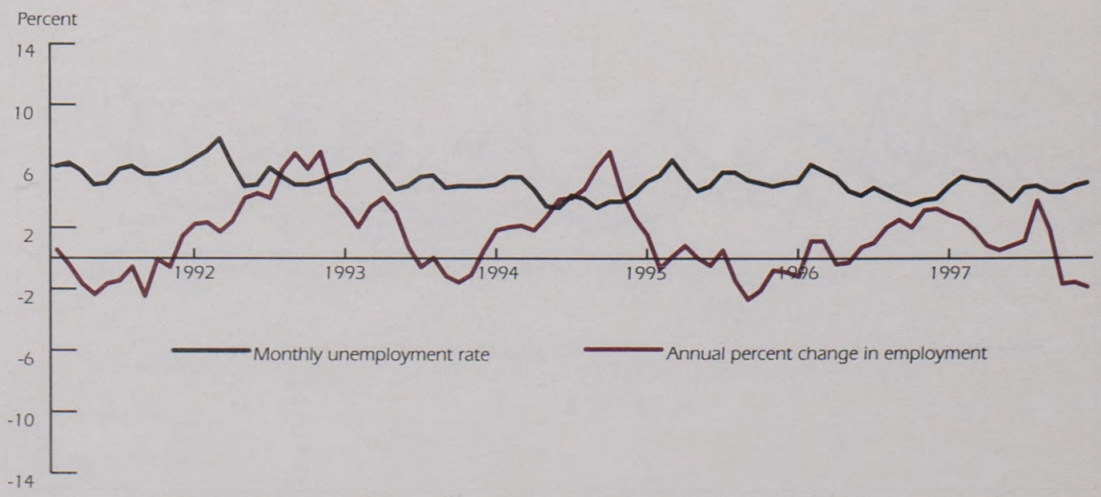
	1996	2000
Nonfarm labor income	**$853**	**$923**
Basic labor income	**$386**	**$405**
Trade center activity	$49	$62
Transportation & utilities	$28	$28
State government	$159	$163
Agriculture and other	$19	$19
Selected manufacturing	$27	$28
Education, FRB	$35	$38
Federal government	$69	$67

Annual Percent Change in Nonfarm Labor Income

Outlook for Lewis & Clark County

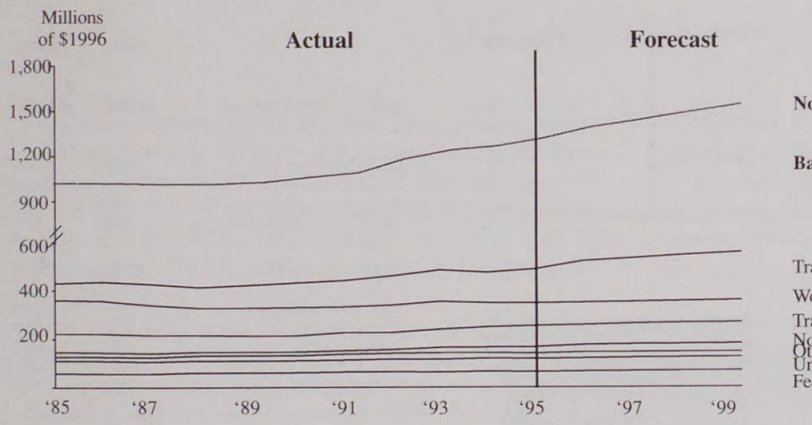
Helena's dependence on state and federal governments—and lack of expanding industries in the 1990s—means continued slow growth. The increases should average about 2 percent between 1997 and 2000, compared to 4 to 6 percent earlier in the decade. The ASARCO plant appears relatively secure in the short-term, but faces longer-term environmental issues and international competition. The monthly employment data suggest a deceleration in the last half of 1997.

Figure 2
Monthly Unemployment Rate and Change in Monthly Employment in Lewis & Clark County
January 1991-November 1997

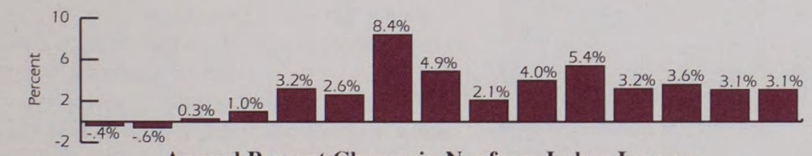


Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Nonfarm Labor Income and Labor Income in Basic Industries, Missoula County, 1985-2000



	1996	2000
Nonfarm labor income	**$1,381**	**$1,571**
Basic labor income	**$523**	**$566**
Trade center activity	$172	$204
Wood & paper	$93	$93
Transportation	$82	$88
Nonresident travel	$31	$34
Other basic	$24	$22
University of Montana	$55	$56
Federal government	$66	$69

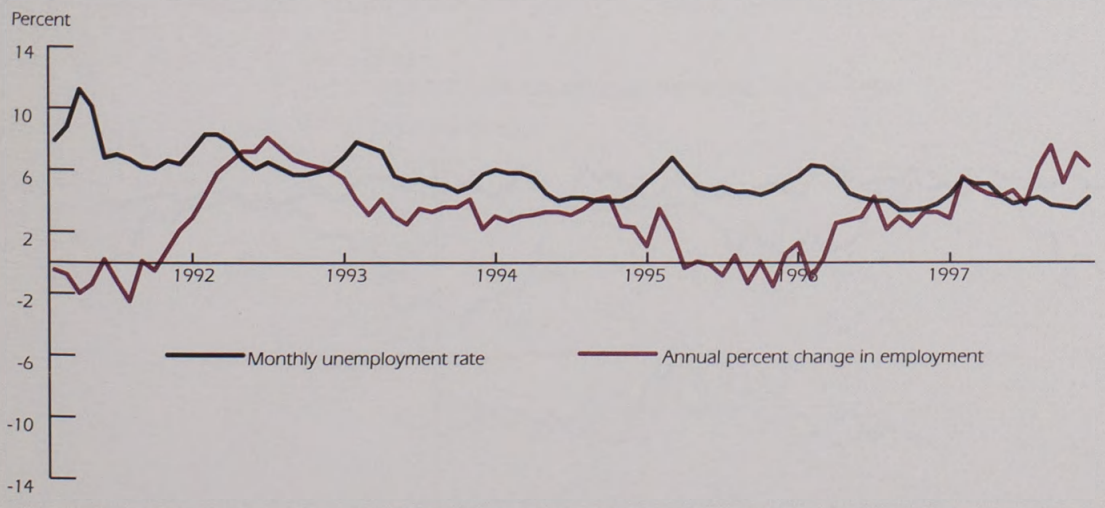


Annual Percent Change in Nonfarm Labor Income

Outlook for Missoula County

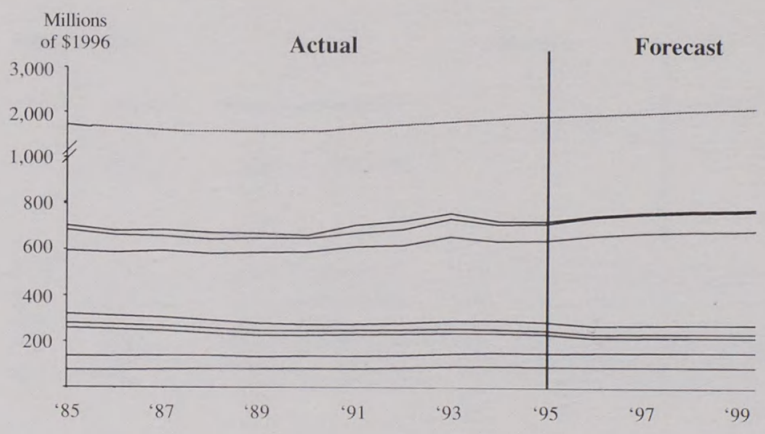
Missoula continues to serve as the state's second largest trade and service center, next to Billings. Developments along North Reserve Street—part of a national restructuring of retail trade toward "big box" stores—ensure that Missoula will continue to be a dynamic and responsive regional trade and service center. Manufacturing remains steady. Construction is strong, but the explosive growth is over, as residential, commercial, and government projects are completed. Overall growth has cooled from the early 1990s, but remains above the state average. The latest employment data suggest a modest acceleration late in 1997.

Figure 2
Monthly Unemployment Rate and Change in Monthly Employment in Missoula County
January 1991-November 1997

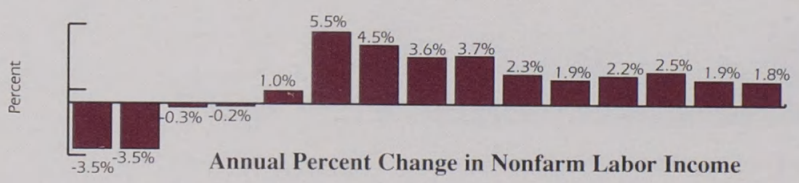


Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Figure 1
Nonfarm Labor Income and Labor Income in Basic Industries, Yellowstone County, 1985-2000



	1996	2000
Nonfarm labor income	**$1,960**	**$2,132**
Basic labor income	**$750**	**$786**
Agriculture and mining	$8	$8
Oil & gas including refining	$80	$85
Trade center activity	$389	$414
Nonresident travel	$37	$39
Higher education	$17	$18
Transportation	$65	$65
Selected manufacturing	$62	$66
Federal government	$92	$91



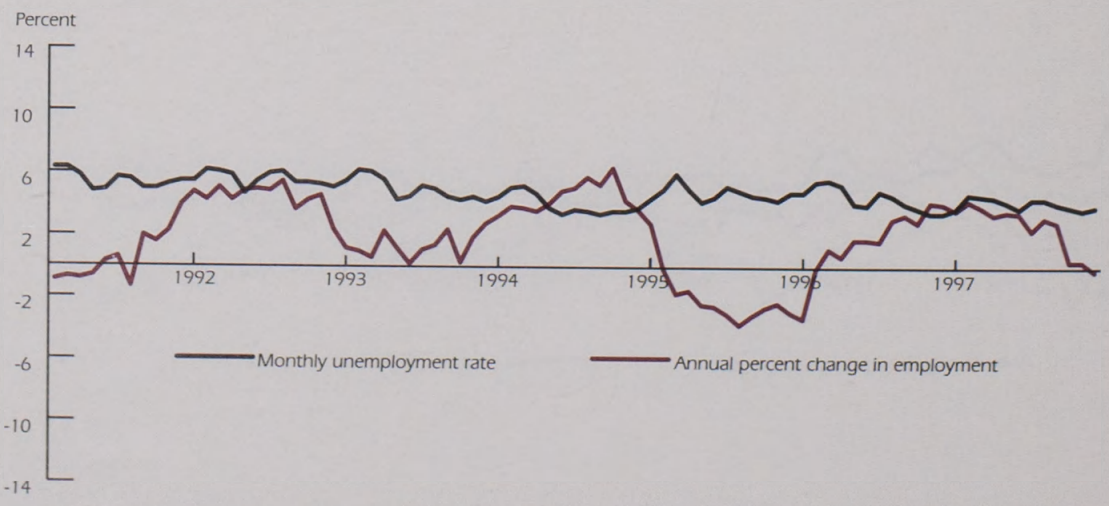
Annual Percent Change in Nonfarm Labor Income

Outlook for Yellowstone County

In Yellowstone County, Billings continues as Montana's major trade and service center. Economic growth peaked in the early 1990s and decelerated to about 2 percent by 1995. Growth from 1997 to 2000 is projected to continue in the 1.5 to 2.5 percent range. The profitability of the local oil refineries has not been affected by low crude oil prices, and the future of the sugar beet plants is dependent on U.S. tariff policies. The latest employment data suggest a deceleration in late 1997.❑

Paul E. Polzin is director of the Bureau of Business and Economic Research, The University of Montana-Missoula.

Figure 2
Monthly Unemployment Rate and Change in Monthly Employment in Yellowstone County
January 1991-November 1997



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Agricultural Forecast

by Alan E. Baquet

Agriculture continues to be Montana's largest basic industry, accounting for more than 30 percent of the state's basic industry employment, labor income, and gross sales. Approximately 60 million of the state's 93 million acres are used for farming and ranching. The number and size of farms has remained relatively constant over the last few years at about 23,000 farms, with an average size of about 2,600 acres.

Agricultural land values have shown a steady increase during the 1990s. In 1996, the average value of Montana farm land was $289 per acre, an increase of about 4 percent over the 1995 value. In inflation-adjusted terms, the value is nearly back to the pre-drought/depression values of the early to mid-1980s.

The state's leading agricultural county is Chouteau County, which is also the number one county in the sale of crops and associated government transfer payments. Yellowstone County leads in the sale of livestock and livestock products.

Major Commodities

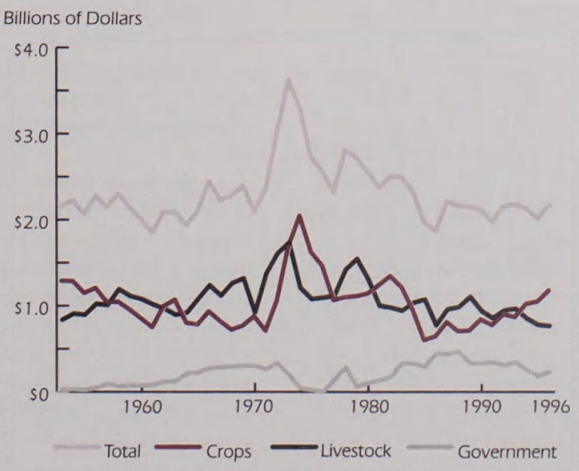
Total receipts for agriculture and the three major components of those receipts are presented in Figure 1. Montana agriculture generates about $2 billion in cash receipts. Total receipts increased about 9 percent over the 1995 level. Receipts from crops and government payments increased by 13 percent and 21 percent, respectively, over 1995. Livestock receipts were basically unchanged between 1995 and 1996. Figure 1 shows that there have been significant fluctuations in total gross receipts from year to year; however, there has been no long-term trend in inflation-adjusted receipts.

Receipts, prices, and production levels for Montana's livestock sector are presented in Figure 2. 1996 was the fourth consecutive year for declines in livestock receipts. This reflects the continued downturn in livestock prices as this phase of the cattle cycle continues. Average livestock prices received by Montana ranchers declined by 10 percent from 1995 levels. In inflation-adjusted terms, this is the lowest price received over the last 43 years. Cattle numbers in the state have increased significantly since the early 1950s and account for the increase in total receipts from livestock shown in Figure 2.

Montana cattle producers have expressed some concern about the impacts of international trade agreements on livestock prices, particularly the North American Free Trade Agreement (NAFTA), which has allowed much freer movement of cattle across the Canadian and Mexican borders. While imports from Canada and Mexico have increased, exports to other countries have also increased. So the net effect of these trade agreements on feeder cattle prices is responsible for only a small portion of the overall reduction in cattle prices.

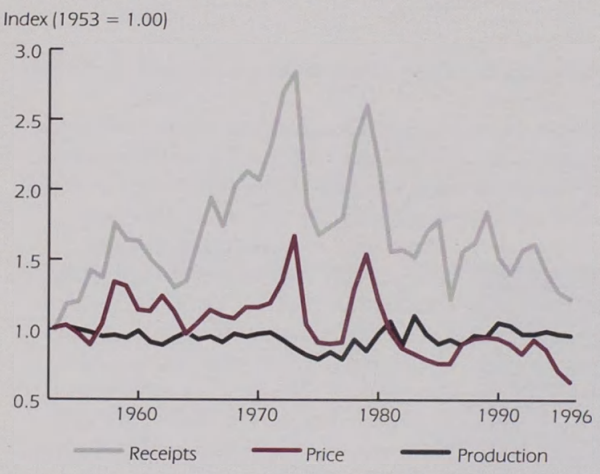
Montana's major grain crop is wheat. It accounts for approximately 70 percent of all cash receipts from crops. Wheat receipts, prices, and yields since 1953 are shown in Figure 3. Wheat prices

Figure 1
Agricultural Cash Receipts, Montana, 1953 - 1996



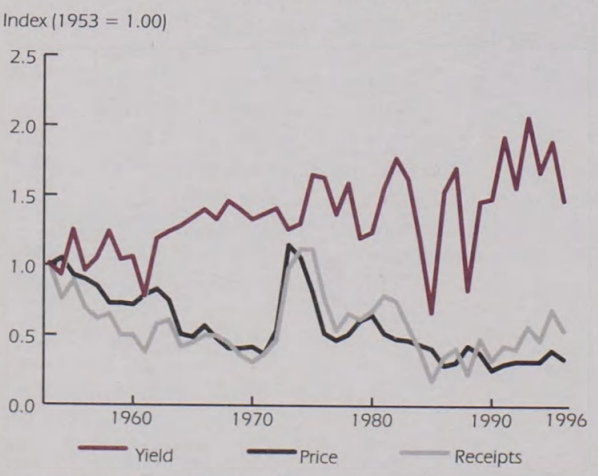
Source: U.S. Department of Agriculture.

Figure 2
Livestock Production, Price, Receipts, Montana, 1953 - 1996



Source: U.S. Department of Agriculture.

Figure 3
Wheat Production, Price, and Receipts, Montana, 1953 - 1996



Source: U.S. Department of Agriculture.

in 1996 decreased by approximately 14 percent over 1995 levels. The average wheat price of $4 per bushel in 1996 is still higher than the average of prices received in the last 10 years. This may reflect a flattening out in the long-term downward trend in inflation-adjusted wheat prices. It could be that export demand for wheat has caught up to the wheat production capability. The significant increase in acres planted to wheat in 1996 did not totally offset the decline in per acre wheat yields and the reduction in price. Thus the value of wheat produced in 1996 declined from the record highs set the previous year. Wheat yields have generally trended upward at about one-half bushel per year since 1953.

The third major income category for Montana producers is government transfer payments. The majority of transfer payments are associated with grain production. In the past, they have served the purpose of tempering the impacts of low commodity prices. A significant change in agricultural legislation occurred with the Federal Agricultural Improvement and Reform Act (FAIR Act), enacted in April of 1996. This represents a major change in how government transfer payments will be determined and the level of those payments. Under previous legislation, transfer payments were based on the difference between market prices and a pre-specified target price; as market prices declined, transfer payments increased. Under the FAIR Act, transfer payments for the next seven years are scheduled and do not depend on market prices, or pre-specified target prices. The stated intent is to move to a more market-oriented agriculture, and to phase out government transfer payments. The current schedule will gradually reduce the payment amount until the year 2002. However, for 1996, transfer payments to Montana's producers increased over the 1995 levels. This is due in part to the relatively high grain prices in 1995 and subsequent low levels of transfer payments in 1995. Transfer payments in 1996 increased by 27 percent over 1995 levels and accounted for about 11 percent of total cash receipts in agriculture. This proportion will decline over the next several years.

Outlook

Livestock prices rebounded dramatically in 1997. This may reflect a bottoming of the current cattle cycle. If so, we should see continued strength in cattle prices over the next few years. National production levels and international trade activities in the livestock/meats sector will have important impacts on the prices that Montana ranchers receive for their livestock.

Wheat prices have remained above average for the past few years. This is partly due to relatively low yields in wheat-producing regions in the United States and around the world. As these regions return to more normal production, wheat prices will likely exceed the $4 per bushel level. In addition, the planting flexibility associated with the FAIR Act may cause some shifting of production from wheat to more highly-valued crops in some parts of the nation. This will have a modest impact on wheat prices. Wheat stocks have not been replenished to any significant degree, so annual production of wheat will continue to have important impacts on wheat prices for the next few years until stocks are rebuilt.

Government transfer payments will decline over the next five years. Montana producers will be more dependent on the marketplace; they will have to replace the income lost from government payments with income from the marketplace. If this is not done, real land values will eventually decline.❑

Alan E. Baquet is a former professor of agricultural economics and economics at Montana State University, Bozeman. He is currently director of South Central Research and Extension in Nebraska.

1998 Outlook and Trends for Travel and Recreation

by Norma Nickerson

Predicting travel and recreation trends for 1998 is accomplished by reviewing trends from previous years and surveying leaders in the industry. After many years of substantial growth and one year of decline in 1996, the travel and recreation industry in Montana may be moving into a stable stage of slow growth.

Montana Trends

Nonresident travel to Montana grew at a slower pace than expected in 1997. The University of Montana-Missoula Institute for Tourism and Recreation Research (ITRR) predicted a 3 percent increase in nonresident travel, but the industry grew only 1 to 2 percent (Figure 1). Nearly 8.8 million nonresidents, or 3.5 million travel groups, visited the state in 1997. These groups spent $418 per trip, compared to $421 nationally per trip. This represents nearly $1.4 billion in direct expenditures, $390 million in direct employee compensation, and more than 30,000 direct jobs. With indirect and induced impacts added to the formula, travel to Montana is a $3 billion industry, accounting for more than $858 million in employee compensation and nearly 59,000 jobs.

Sixty-five percent of all nonresident travel to Montana occurs in June, July, August, and September, according to a 1997 survey of nonresident summer travelers conducted by ITRR.

Nearly half of the visitors to Montana are attracted to the national parks (25 percent to Glacier and 22 percent to Yellowstone). The remaining visitors are attracted to the state for various other reasons: mountains (12 percent), fishing (6 percent), special events (4 percent), open space/uncrowded areas (1 percent), and a variety of other attractions. Visitation to the park is a good indicator of all nonresident travel to Montana: when the park visitation is up, nonresident travel is up; when park visitation is down, nonresident travel decreases. As shown in Figure 2, visitors to Glacier and Yellowstone parks decreased by 1 and 3 percent, respectively, in 1997.

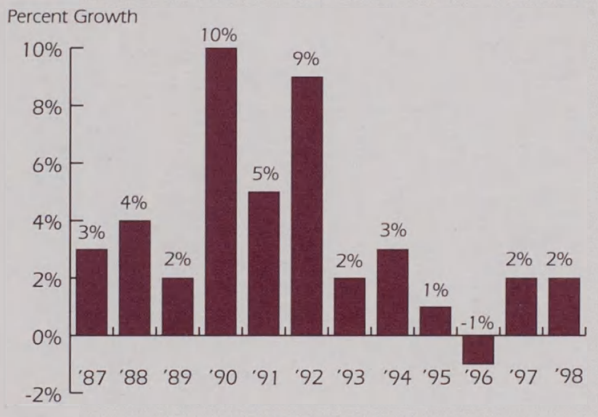
Last year, we reported downward visitation numbers at numerous attractions in the state—this year, the numbers have increased (Table 1). Interestingly, much of the increase occurred in the smaller communities, while larger communities such as Billings and Great Falls decreased. This trend supports the idea that visitors may be spreading out to the smaller, rural areas.

Table 1
Visitation Numbers at Selected Attractions Throughout Montana

	1996	1997*
Lewis & Clark Caverns	-7.0%	+3.0%
National Bison Range	-11.0%	+5.0%
Montana Historical Society	-7.0%	+1.0%
Museum of the Rockies	-17.0%	+2.0%
Grant Kohrs Ranch	-0.7%	-2.5%
Little Bighorn Battlefield Nat'l. Monument	-11.0%	-3.0%

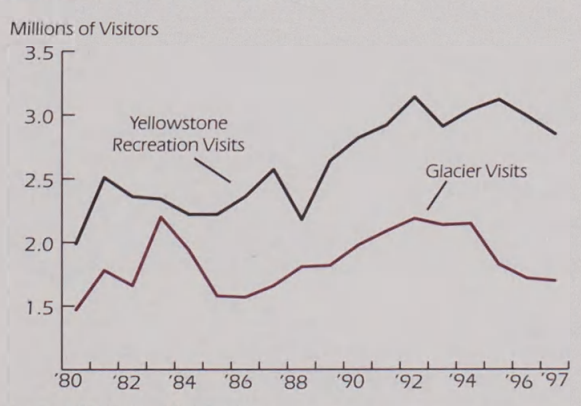
*Represents 1997 estimated change.

Figure 1
Yearly Percent Change in Nonresident Visitation to Montana, 1987 - 1998



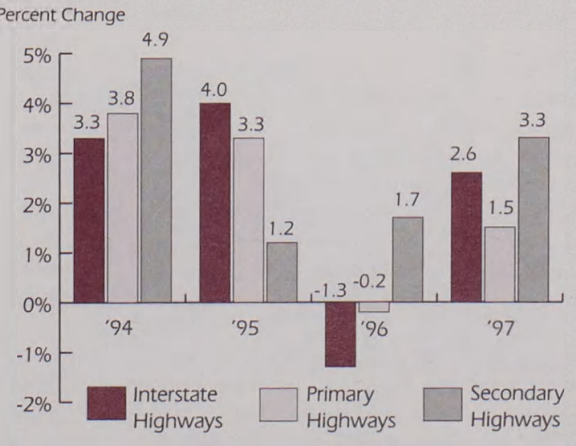
Source: ITRR, The University of Montana-Missoula.

Figure 2
National Park Visits, 1980 - 1997



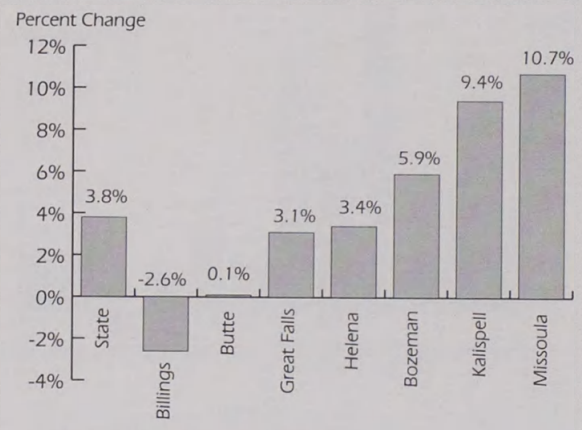
Source: USDI National Park Service.

Figure 3
Percent Change in Montana Highway Traffic



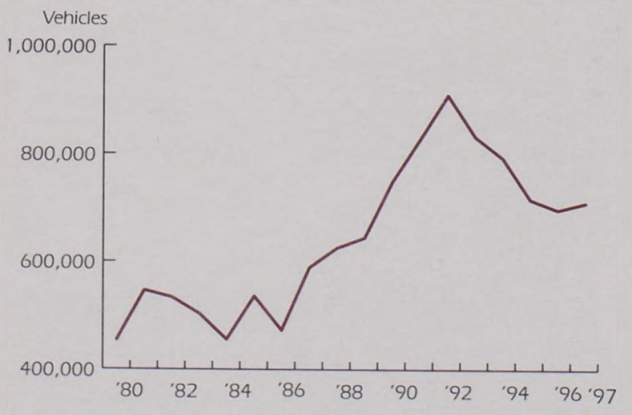
Source: Montana Department of Transportation.

Figure 4
Montana Airport Deplanements, 1996 - 1997



Source: Montana Airport Managers Association.

Figure 5
Canada to Montana Vehicle Crossings



Source: U.S. Customs Service.

Other trends that affect Montana's travel industry include highway and airport traffic and Canadian border crossings. Compared to 1996, highway travel is up on all types of roads (Figure 3). Interstate travel was 2.6 percent in 1997, up from -1.3 percent in the previous year.

Montana's 1997 airport traffic increased by 3.8 percent in 1997 (Figure 4). Missoula experienced the highest increase at 10.7 percent, followed by Kalispell at 9.4 percent, and Bozeman at 5.9 percent. The Billings airport decreased 2.6 percent from 1996.

Increased airport traffic has brought more business for Montana's car rental agencies. Six of the seminar cities—Butte, Bozeman, Great Falls, Helena, Missoula, and Kalispell—reported increased car rentals in 1997 due to airport traffic. Rentals increased in Missoula by 25 percent; in Bozeman by 10 to 12 percent; in Kalispell by 8 to 10 percent; and in Helena by 5 to 10 percent. Rentals in Great Falls and Butte grew only slightly. Billings was the only seminar city that did not report significant gains; it was also the only city with declining airport traffic.

Trends in Canadian border crossings have finally switched from negative to positive. The estimated increase for 1997 is at least 2 percent above last year (Figure 5). This figure could increase when final border crossing numbers become available.

Another upward trend is skier visits to Montana. Ski conditions were some of the best on record for 1997. Numbers for the 1996-1997 ski season reflect a 4.6 percent increase over 1995-96 (Figure 6). While skiing days are on a slight downward trend nationally, Montana has yet to experience this trend.

Overall, 1997 was a better travel year than 1996 for Montana, according to a tourism industry survey conducted in mid-December by ITRR. The mail survey asked 171 tourism-related businesses/agencies about their visitation numbers during 1997. The survey results showed that visitation was up for 46 percent of the respondents and remained about the same for 28 percent. Only 26 percent said visitation was down. Compared to responses from the 1996 survey, in which 41 percent said visitation was down, the survey indicated that 1997 was more profitable for Montana's travel businesses. Additionally, revenues were either increased or remained the same for 74 percent of the respondents (Figure 7). Respondents included personnel from motels, bed & breakfasts, campgrounds, guest ranches, CVB/chambers, resorts, museum/historic sites, attractions, gas station/convenience stores, ski areas, outfitter/guides, and galleries, as well as public land managers. About 50 percent of all businesses questioned responded.

National Trends vs. Montana Trends

National travel volume for 1997 grew 5 percent, compared to 2 percent in Montana. This slower increase in Montana can be explained by looking at national park visitation numbers around the country. While park visitation was up overall in 1997, visitation in the mountain states was down 3.1 percent.

While Montana was slightly lower than the nation in terms of travel increases, the state generally followed national trends in 1997 (Table 2).

Table 2
Travel Changes From 1996 to 1997

	National	Montana	
1997 Travel Volume	+5.0%	+2.0%	
Traffic from Canada	+4.0%	+2.0%	
Air Traffic	+5.0%	+4.0%	
Hotel Occupancy	-0.9%	+0.3%	
National Park Visits	+4.0%	-1.0%	Glacier
		-3.0%	Yellowstone

1998 Outlook

Montana's tourism and recreation industry should experience another year of growth. The U.S. economy is stable, consumer confidence is at an all-time high, and unemployment is at a 24-year low. While inflation was up slightly over last year (2.7%), the travel price index was up 4 percent. Real disposable income grew 3.4 percent in 1997 and is expected to increase another 2.6 percent in 1998.

In ITRR's tourism industry survey, Montana business owners and land managers predicted a 2.6 percent increase in 1998 visitation. They based this prediction on better advertising by small businesses, increased interest in the Lewis & Clark journey, good economic conditions, and advanced bookings. Nationally, air traffic is expected to increase 2.6 percent in 1998. Auto traffic is expected to increase 3 percent in 1998. Canadian visitation is expected to increase another 4 percent. Montana is the seventh most-visited state by our neighbors to the north.

Based on all these indicators, Montana should experience another 2 percent increase of nonresident visitors in 1998, partly due to growing numbers of Canadian visitors. These predicted increases are small because high consumer confidence encourages travelers to travel further than Montana and spend more money out-of-state. Many consumers may be saving a vacation to the Big Sky for a later date.❑

Sources:

Clark, G. (1997). Outlook for Leisure Travel and Auto, in 1997 TIA Marketing Outlook Forum. Alexandria, VA: Travel Industry Association of America.

Travel Industry Association of America, http://www.tia.org/research/fastfacts.stm

Parrish, J., Nickerson, N., & McMahon, (1997). Nonresident Summer Travelers to Montana: Profiles and Characteristics. Research Report 51. Missoula, MT: Institute for Tourism & Recreation Research, The University of Montana-Missoula.

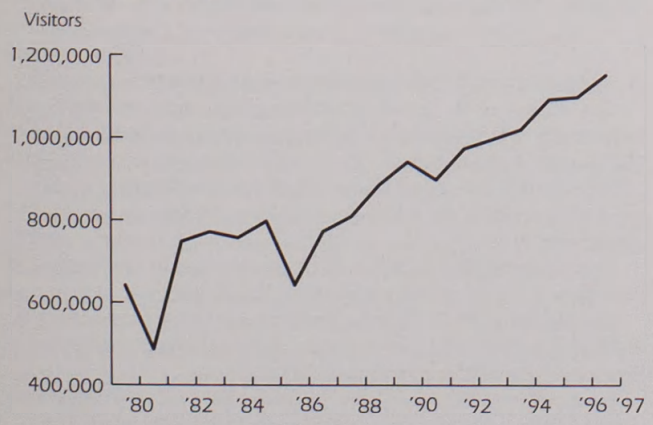
National Travel Facts

- The Automobile Association of America (AAA) reports that 80 percent of automobile travelers travel 200 miles or less from home and 53 percent do not leave their own state.
- Weekend trips by Americans jumped 70 percent between 1986 and 1996, accounting for more than half of U.S. travel. Non-weekend travel increased by only 15 percent during the same period.
- One-half of U.S. adults (31 million people) have taken an adventure trip in the past five years, engaging in hard adventure activities like whitewater rafting, scuba diving, and mountain biking.
- The share of vacationers who travel with children increased from 45 percent in 1992 to 55 percent in 1996. Most families prefer ocean/beaches, historic sites, and cities for their vacation.
- Eighty-three percent of travelers are inclined to support "green" travel companies and are willing to spend, on average, 6.2 percent more for travel services and products provided by environmentally responsible travel suppliers.
- Six million travelers booked trips online in 1997.
- Small businesses dominate the travel and tourism industry.

Source: Travel Industry Association of America.

Norma Nickerson is director of the Institute for Tourism and Recreation Research, The University of Montana-Missoula.

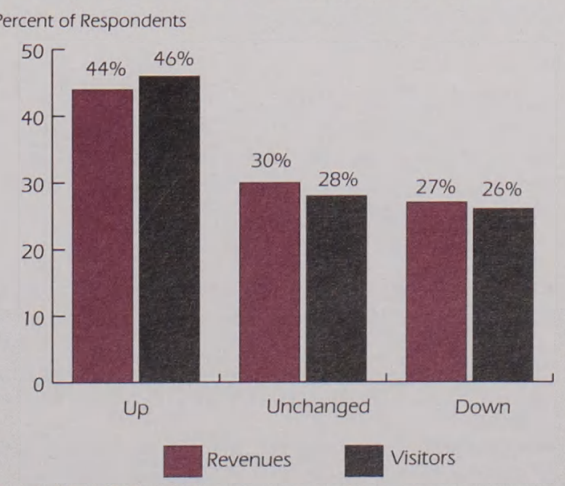
Figure 6
Montana Skier Visits



Season ('80 = '79 - '80 season)

Sources: USDA Forest Service, Big Sky, Wraith Hill, and Great Divide Ski Resorts.

Figure 7
Industry Evaluation of 1997 Compared to 1996



Source: ITRR 1997 Outlook Survey.

Manufacturing in Montana

by Charles E. Keegan III, Daniel P. Wichman, and Robert Campbell

Manufacturing is adding value through "the mechanical or chemical transformation of substances or materials into new products." Both nationally and in Montana, this sector includes traditional heavy industries, as well as a broad array of other activities ranging from the production of very complex and sophisticated high technology equipment to cottage industries producing hand-made items like jewelry or sporting goods.

The state's manufacturing sector:

- produces more than $5 billion in output annually,
- directly employs 30,000 workers earning $870 million in annual labor income,
- includes approximately 2,400 entities such as factories and plants, logging companies, and at-home cottage industries.

Industry Structure

Much of Montana's manufacturing industry is tied to the state's natural resources. The largest component—wood, paper, and furniture products manufacturing—is based primarily on Montana's timber resource and contributes approximately 40 percent of the state's manufacturing labor income, and 37 percent of employment (Figures 1 and 2). Most producers in food products, metals and petroleum refining, chemicals and stone, clay, and glass products either process the state's natural resources and agricultural products or use the region's relatively inexpensive energy resources. These producers account for an additional 30 percent of Montana's manufacturing labor income and 23 percent of employment.

In the past decade, two broad categories shown in Tables 1 and 2—machinery, equipment, and instruments, and miscellaneous manufacturing—have accounted for most of the growth in Montana's manufacturing and now provide 22 percent of manufacturing labor income and 28 percent of employment. These categories contain some heavy manufacturing components such as a locomotive engine repair facility in Livingston, but much of the output is in high technology, electronics, and an array of light manufacturing—sporting goods, jewelry, musical instruments, apparel and textiles and fabricated metals.

The remaining approximately 10 percent of manufacturing labor income and employment is in printing and publishing, which is dominated by newspapers, but also includes commercial printers and publishers as well as copy shops.

Geographic Distribution

Flathead, Missoula, and Yellowstone counties have the highest manufacturing labor income in the state; over half of the state's total manufacturing labor income is in these three counties. Interestingly, over 80 percent of the state's manufacturing labor income occurs in only 10 counties (Table 3).

Manufacturing in Montana: the Past Decade

1988-1997: In the past decade, Montana's manufacturing employment has increased from 25,100 workers in 1996 to just over 30,000 in 1997. Manufacturing labor income in constant 1997 dollars increased from about $760 million in 1988 to about $870 million in 1997 (Figure 1 and Table 1).

The fastest growth has been in machinery, equipment, and instruments, and miscellaneous manufacturing. Employment and labor income have doubled in the past 10 years between these two categories.

Figure 1
Labor Income in Montana Manufacturing Industries, 1988-1997

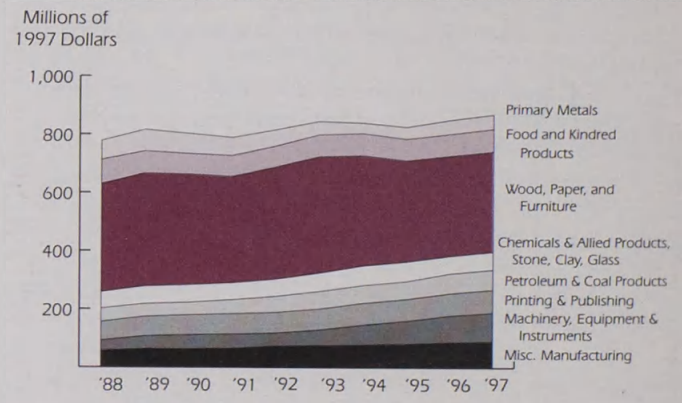
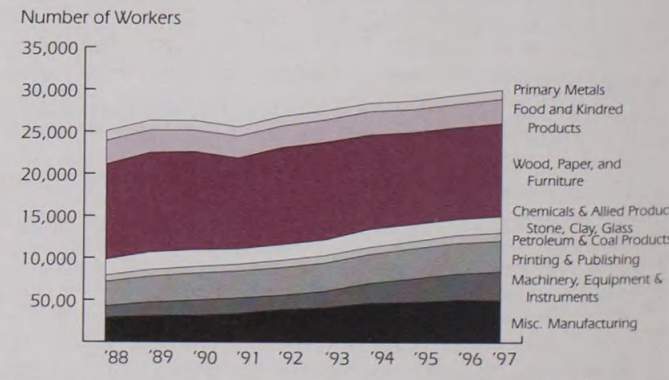


Figure 2
Montana Manufacturing Employment, 1988-1997



Sources: Bureau of Business and Economic Research, The University of Montana-Missoula; Bureau of Economic Analysis, U.S. Department of Commerce.

The majority of the growth in machinery, equipment, and instruments in the 1990s has been at the Semitool facility in Flathead County and in small, high technology and electronics plants concentrated in Gallatin County. The growth in miscellaneous manufacturing has been primarily in sporting and athletic goods, games and toys, and musical instruments.

Printing and publishing saw a 30 percent increase in employment over the past decade, as did petroleum and coal products.

Chemicals and allied products, stone, clay, and glass increased slightly since 1988, with growth in cement-related products offsetting the closure of the Rhone-Poulenc chemical plant.

From 1988 to 1997, wood, paper and furniture products experienced about a 3 percent decrease in employment and a 7 percent decrease in labor income due primarily to reduced timber availability (see pages 22 and 23).

Primary metals had about an 8 percent decline in employment with the restructuring of the Columbia Falls aluminum plant.

The numbers for food and kindred products show a small decline in labor income and a small increase in employment since 1988. More growth may have occurred in this sector, but some components such as bakeries may be incorporated into large retail food stores and reported in non-manufacturing employment.

1997: The past year on average was better than expected for most of Montana's manufacturing sectors due to strong U.S. and international markets during the first six months of 1997. However, due to the economic problems in Asia, markets for a number of key products weakened in the last half of the year. To illustrate, lumber prices were at record high levels through the first half of 1997. In the second half of 1997 the U.S. economy remained strong, but Japan and a number of other Asian countries experienced sharp declines in economic activity. With reduced global demand, lumber prices fell for a record 14 straight weeks and by year end were 10 to 25 percent below June 1997 levels.

Some high technology manufacturers saw demand slacken, and some primary metals prices have dropped sharply. Most other sectors do not believe they will see negative impacts unless the Asian situation worsens. Montana manufacturing also experienced growing pains, which brought about production cutbacks at some newer facilities.

1998 Outlook

The overall outlook for manufacturing this year is for stability. On the positive side, a number of new facilities came on line in 1997. A major addition in 1998, the Advanced Silicon plant in Silver Bow County, will employ several hundred workers by the end of 1999.

On the negative side, three small to medium sawmills announced closures late in 1997. A number of companies recently reduced employment, some for strategic reasons after finding lower production costs overseas. Others reduced operations, as cash flow problems caused cutbacks.

In 1998, North American economies should slow down slightly from 1997, but will still be relatively strong; this, coupled with good European economic performances, should cushion the impact from Asian declines. The duration and depth of the Asian declines—particularly the Japanese declines—will be key factors in 1998 and 1999.

Looking at individual sectors:

Wood, Paper, and Furniture Products: Long-term price trends appear favorable. Reduced timber availability remains a major risk for the wood products industry (See pages 22 and 23).

Chemicals and Allied Products, Stone, Clay, and Glass: The Advanced Silicon plant opening in Silver Bow County is a major addition to this sector.

Machinery, Equipment, and Instruments, and Miscellaneous Manufacturing: Expect flat markets in 1998 until Asian problems resolve themselves.

Petroleum Refining: Stable employment with strong regional demand for refining capabilities.

Food and Kindred Products: Modest growth expected. The major addition is the pasta plant in Great Falls, which opened in summer 1997.

Printing and Publishing: Stable to modest growth.

Primary Metals: There will be a one-time major boost in payrolls in Columbia Falls as the Aluminum refinery settles a profit-sharing dispute. The aluminum refinery has long-term contracts and has not been impacted by the Asian declines. Lead and copper prices have both dropped in the last six months. The lead smelter in East Helena is protected from short-run price swings by commodities hedging, but is impacted in the long-run by global competition as well as metal prices.❑

Charles E. Keegan III is the director of forest industry research at the Bureau of Business and Economic Research, The University of Montana-Missoula. Daniel P. Wichman is a BBER forest industry research specialist. Robert Campbell is resource director at Montana Business Connections.

Table 1
Labor Income in Montana's Manufacturing Sectors, 1988 and 1997

	Million 1997 Dollars			
	1988		1997	
Wood, Paper, & Furniture Products	364	48%	344	40%
Machinery, Equipment & Instruments	35	5%	100	12%
Miscellaneous Manufacturing*	55	7%	89	10%
Printing & Publishing	63	8%	79	9%
Food and Kindred Products	81	11%	78	9%
Petroleum & Coal Products	45	6%	69	8%
Chemicals & Allied Products, Stone, Clay, Glass	55	7%	61	7%
Primary Metals	64	8%	49	6%
All Manufacturing	762	100%	869	100%

*Miscellaneous Manufacturing includes mostly light manufacturing such as sporting goods, musical instruments, games and toys, and jewelry, but it also includes such things as fabricated metals.

Table 2
Employment in Montana's Manufacturing Sectors, 1988 and 1997

	Number of Workers			
	1988		1997	
Wood, Paper & Furniture Products	11,312	45%	11,068	37%
Miscellaneous Manufacturing*	2,885	11%	5,020	17%
Printing & Publishing	2,901	12%	3,689	12%
Machinery, Equip. & Instru.	1,375	5%	3,402	11%
Food & Kindred Products	2,815	11%	2,882	10%
Chemicals & Allied Products, Stone, Clay, Glass	1,883	8%	1,942	6%
Primary Metals	1,165	5%	1,080	4%
Petroleum & Coal Products	754	3%	965	3%
All Manufacturing	25,090	100%	30,048	100%

*Miscellaneous Manufacturing includes mostly light manufacturing such as sporting goods, musical instruments, games and toys, and jewelry, but it also includes such things as fabricated metals.

Table 3
Manufacturing Labor Income Among Montana Counties

	1995 Manufacturing Labor Income (Millions of 1997 Dollars)	Percent of State's Manufacturing Labor Income
Flathead	167	20%
Yellowstone	137	16%
Missoula	134	16%
Gallatin	78	9%
Lincoln	39	5%
Lewis & Clark	37	4%
Cascade	36	4%
Ravalli	31	4%
Lake	25	3%
Silver Bow	21	3%
Park	16	2%
Sanders	12	1%
Powell	11	1%
Richland	11	1%
Remaining 42 Counties	89	11%
State Total	844	100%

Sources: Bureau of Business and Economic Research, The University of Montana-Missoula; Bureau of Economic Analysis, U.S. Department of Commerce.

Montana's Forest Products Industry

by Charles E. Keegan III and Daniel P. Wichman

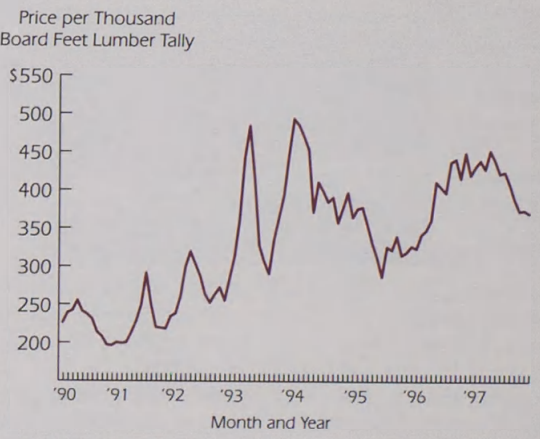
Montana's forest products industry began the year on a positive note, but conditions generally deteriorated as the year progressed.

During the first half of 1997 the U.S. economy was strong, with generally good or improving economies throughout the world. Record prices for lumber—the major output of Montana's industry—led to increased production and employment (Figure 1).

In the second half of 1997 the U.S. economy remained strong, but Japan and a number of other Asian countries experienced sharp declines in economic activity. This situation contributed to reduced global demand and lumber prices fell for a record 14 straight weeks. By year end, prices were 10 to 25 percent below June 1997 levels.

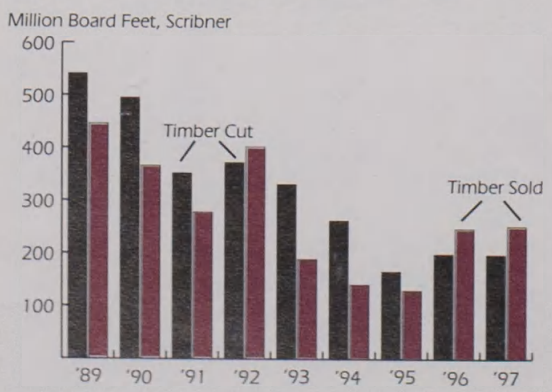
Despite declining lumber prices in the last half of 1997, annual average lumber prices, employment, production, and sales in Montana's forest products industry were up from 1996 levels. Total employment increased from 10,900 in 1996 to about 11,100 in 1997. Lumber production was up in 1997 by about 14 percent, while wood and paper product sales increased from about $1.1 billion in 1996 to $1.3 billion in 1997 (Figures 3, 4, and 5).

Figure 1
Nationwide Composite Lumber Prices, Monthly, 1990 - 1997



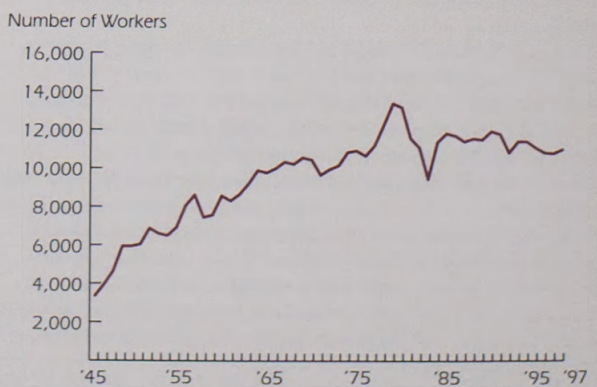
Source: Random Lengths Publications.

Figure 2
Montana National Forest Timber Cut and Sold Volumes, Fiscal 1989 - 1997



Source: USDA Forest Service Region One, Missoula, Montana

Figure 3
Montana Forest Industry Employment, 1945 - 1997



Source: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula.

Timber supply was also somewhat improved in 1997. National forest timber sale volumes had increased in 1996, ending a four-year slide. Timber offerings in fiscal 1997 (which ended in September 1997) showed a slight increase over fiscal 1996 (Figure 2). Much of the increase in 1996—and some of the sales in fiscal 1997—were due to the temporary and now expired salvage rider, which exempted certain sales from some environmental review procedures.

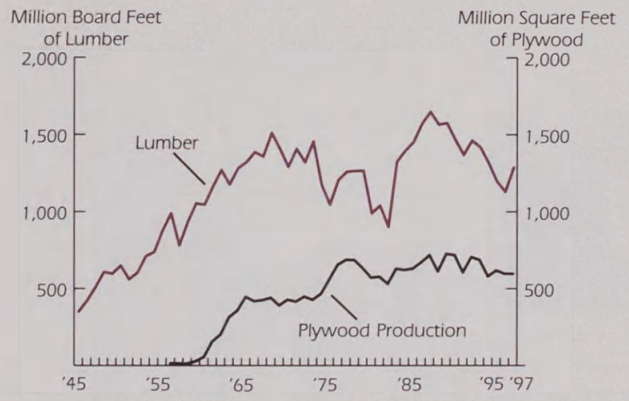
The second half of 1997 brought harder times to the forest products industry. In addition to weaker prices, declines occurred in national forest timber sale offerings, which probably will carry into 1998. In late 1997, three small to medium sawmills announced closures due to reduced timber availability and large swings in lumber prices.

Outlook

Overall, with growing global demand, the long-term market outlook for Montana's wood and paper products industry is positive. Timber availability remains the major barrier for the state's industry. Private timberlands are being harvested at near long-term sustainable levels, and large increases cannot be expected. The level of harvest from public lands will be a major factor in determining the size and structure of Montana's industry.

The national forest supply outlook is uncertain though. During the first half of the 1990s, Montana's federal timber sale program declined by more than 70 percent, from nearly 500 million board feet per year in the last half of the 1980s to under 150 million board feet in 1995 (Figures 2 and 6). The fiscal 1996 and 1997 program rose to approximately 250 million board feet each year. Looking to 1998, the target timber sale level is slightly lower than the last two years. Additionally, appeals and litigation, as well as potential changes in roadless area policy, may make that target difficult to achieve.❑

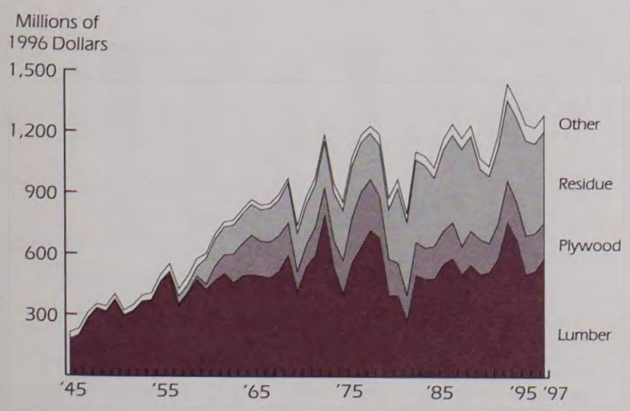
Figure 4
Montana Lumber and Plywood Production, 1945 - 1997



Source: American Plywood Association; Bureau of Business and Economic Research, The University of Montana-Missoula; Western Wood Products Association.

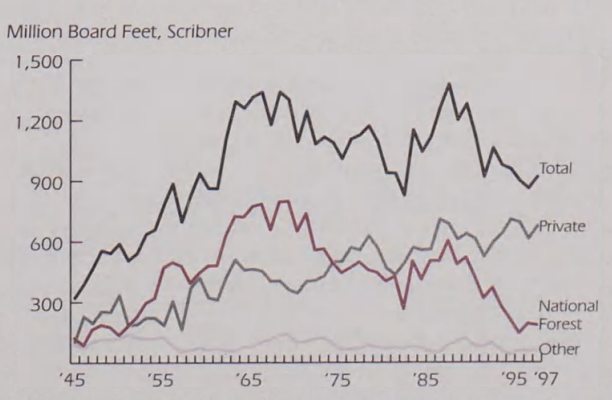
Charles E. Keegan III is the director of forest industry research at the Bureau of Business and Economic Research, The University of Montana-Missoula. Daniel P. Wichman is a BBER forest industry research specialist.

Figure 5
Sales Value of Montana's Wood and Paper Products, 1945 - 1997



Source: American Plywood Association; Bureau of Business and Economic Research, The University of Montana-Missoula; Western Wood Products Association.

Figure 6
Montana Timber Harvest by Ownership, 1945 - 1997



Source: Bureau of Business and Economic Research, The University of Montana-Missoula; USDA Forest Service Region One, Missoula, Montana.

How Healthy Are We?

Health Care Indicators for Montana

by Stephen Seninger

Montanans spend more than $2 billion per year on health care, including doctors, hospitals, clinics, medical testing labs, home health, nursing homes, dentists, chiropractors, and other health care providers. This large outlay of dollars represents a tremendous use of economic resources—medical facilities and personnel, equipment, technology, and patients' time.

What is the return on health care expenditures in terms of our health? Are we better off or healthier as a result?

It appears that Montanans are indeed healthier than in previous years. Heart disease and infant deaths have declined in Montana during the 1990s; deaths from cancer and strokes have stayed roughly constant.

To make long-term comparisons between health care expenditures, resource use, and treatments, we need to study "health outcomes," or the status of a patient's health after treatment. Hospitals routinely look at symptomatic outcomes to find out if the treatment was appropriate and if it changed the symptoms for the better. This approach is somewhat limiting, though.

To effectively analyze health outcome for patients, hospitals need to conduct health-related quality of life surveys after treatment or intervention. There are several ongoing national studies that question patients about health problems and symptoms following treatment, and about physical, psychological, and social well-being. Surveying patients would allow hospital staff to analyze treatments and long-term effects, as well as costs and resource use.

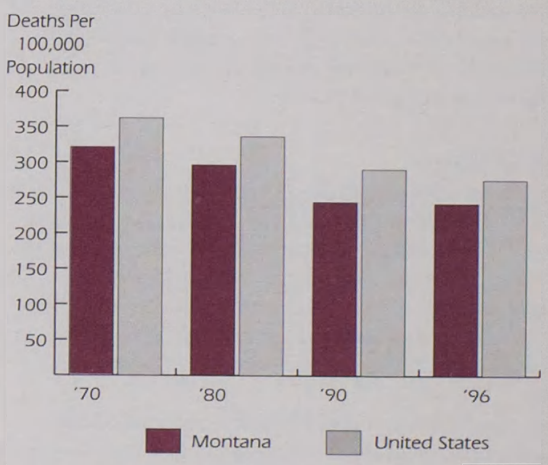
Health Care Indicators

Mortality Rates

Mortality rates from major diseases are about the same in the Missoula, Great Falls, and Billings regions, though pulmonary disease—bronchitis, emphysema, and asthma—tends to be higher in some counties and in some Native American regions.

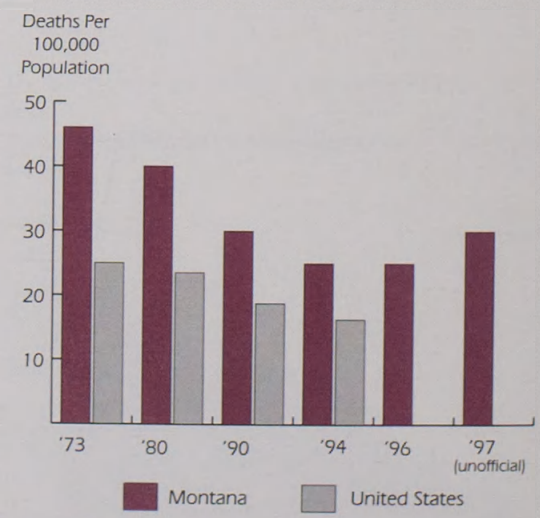
Between 1970 and 1990, Montana's death rate from heart disease declined significantly. During the 1990s, the death rate has been fairly stable and remains below the U.S. rate (Figure 1). The number of deaths due to cancer (200 per 100,000), strokes (62 per 100,000), and all kinds of accidents (45 per 100,000) have been roughly constant between 1990 and 1996 and about equal to the U.S. rate. However, deaths due to pulmonary disease have increased to 62 per 100,000 in 1996, from 49 per 100,000 in 1990.

Figure 1
Montana Deaths From Heart Disease



Sources: Montana Department of Public Health and Human Resources; Statistical Abstract of the United States.

Figure 2
Montana's Death Rate* From Traffic Accidents



*Includes Montanans and nonresidents.
Sources: Montana Department of Public Health and Human Resources; Statistical Abstract of the United States.

Deaths due to traffic accidents have declined from historical highs, remaining relatively constant during the 1990s, with the exception of last year (Figure 2). In 1997, traffic-related deaths were up 22 percent from the previous year—30 per 100,000 in 1997, compared to 25 per 100,000 in 1996. Montana's unofficial tally shows traffic deaths at 265 as of New Year's Eve 1997, compared to 225 deaths in 1996.

Births

Following a national pattern, Montana's birth rate per 100,000 has declined since 1986 and remains slightly below the U.S. rate. The 1996 rate of about 13 live births per 100,000 varied throughout Montana regions, with Missoula's rate at 11 per 100,000; Great Falls at 14.4; and Billings at 12.4.

Infant Deaths

Infant mortality rates have also declined in Montana during the 1990s, staying above the U.S. rate in recent years (Figure 3). The same pattern holds for perinatal deaths (babies at 28 days or less).

Part of the reason for the reduced infant mortality rate is that nearly 80 percent of pregnant women in Montana begin prenatal care in their first trimester—a rate that seems to be about the same throughout most regions of the state.

Health Resource Utilization and Costs

End-of-life health care can be very expensive and may require heavy usage of hospital resources. The percentage of Montana Medicare patients admitted to an intensive care unit (ICU) in the last six months of life is slightly lower than the U.S. rate. The 1995 ICU admittance rates for Montana's three major health care markets are: Billings, 21 percent; Great Falls, 24 percent; and Missoula 22 percent. The U.S. rate was 31 percent in 1995.

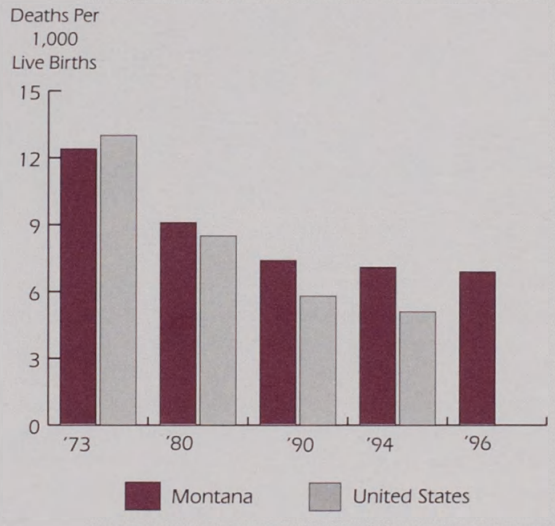
The number of days that these Medicare patients stayed in the hospital was also lower than the U.S. rate, with Billings patients at 7.9 days; Great Falls patients at 8.5 days; and Missoula patients at 6.9 days. The U.S. rate was 11.3 days.

Hospitalization rates for major diseases (per 1,000 Medicare enrollees in 1995) were:

- Congestive heart failure: Billings, 17.0; Great Falls, 19.4; Missoula, 14.8; U.S., 21.2.
- Chronic pulmonary disease: Billings, 9.4; Great Falls, 13.5; Missoula, 10.5; U.S., 10.1.

While extended hospital stays can be expensive, hospital costs have moderated in the past couple of years. The Producers Price Index for Hospitals increased 3.7 percent from 1994-1995, but only 1.4 percent between 1995 and 1996.

Figure 3
Montana's Infant Deaths per 1,000 Live Births



Sources: Montana Department of Public Health and Human Resources; Statistical Abstract of the United States.

Access to Health Care

Providing access to health care is always challenging. In Montana, nearly 110,000 residents—12.7 percent of the population—lacked private or public health care coverage in 1995, compared to 8.3 percent in North Dakota; 12.4 percent in both Oregon and Washington; 14.0 percent in Idaho; 15.9 percent in Wyoming; and 15.4 percent nationally.

Approximately 80,000 Montanans—10 percent of the state's population—received health care coverage from Medicaid in 1995. About 16.5 percent of Montana's population is currently enrolled in Medicare, compared to 15 percent nationally.

For the most part, Montanans who need health care treatment go to hospitals close to home. Ninety percent of the Montanans who live in the Billings, Great Falls, and Missoula areas receive care within those regions, though some patients are drawn to Seattle, Denver, Salt Lake City, and Spokane hospitals.❑

Stephen Seninger is director of health care industry research at the Bureau of Business and Economic Research, The University of Montana-Missoula.

Alan E. Baquet received degrees in agricultural economics from Montana State University, Oregon State University, and Michigan State University. He has been involved in agricultural management and consulting. A former professor in the Department of Agricultural Economics and Economics at Montana State University, Baquet taught economics courses, worked with extension education programs for Montana farm and ranch managers, and pursued research relating to risk management and the role of crop insurance. He is currently director of South Central Research and Extension in Nebraska.

Charles E. Keegan is director of forest industry research in the Bureau of Business and Economic Research, and research professor in the School of Business Administration at The University of Montana-Missoula. His research has emphasized the structure and operations of the forest products industry in the Rocky Mountain region and the relationships that exist between timber processed and employment and wages. Recently he has expanded his research to include other sectors of Montana's manufacturing industries.

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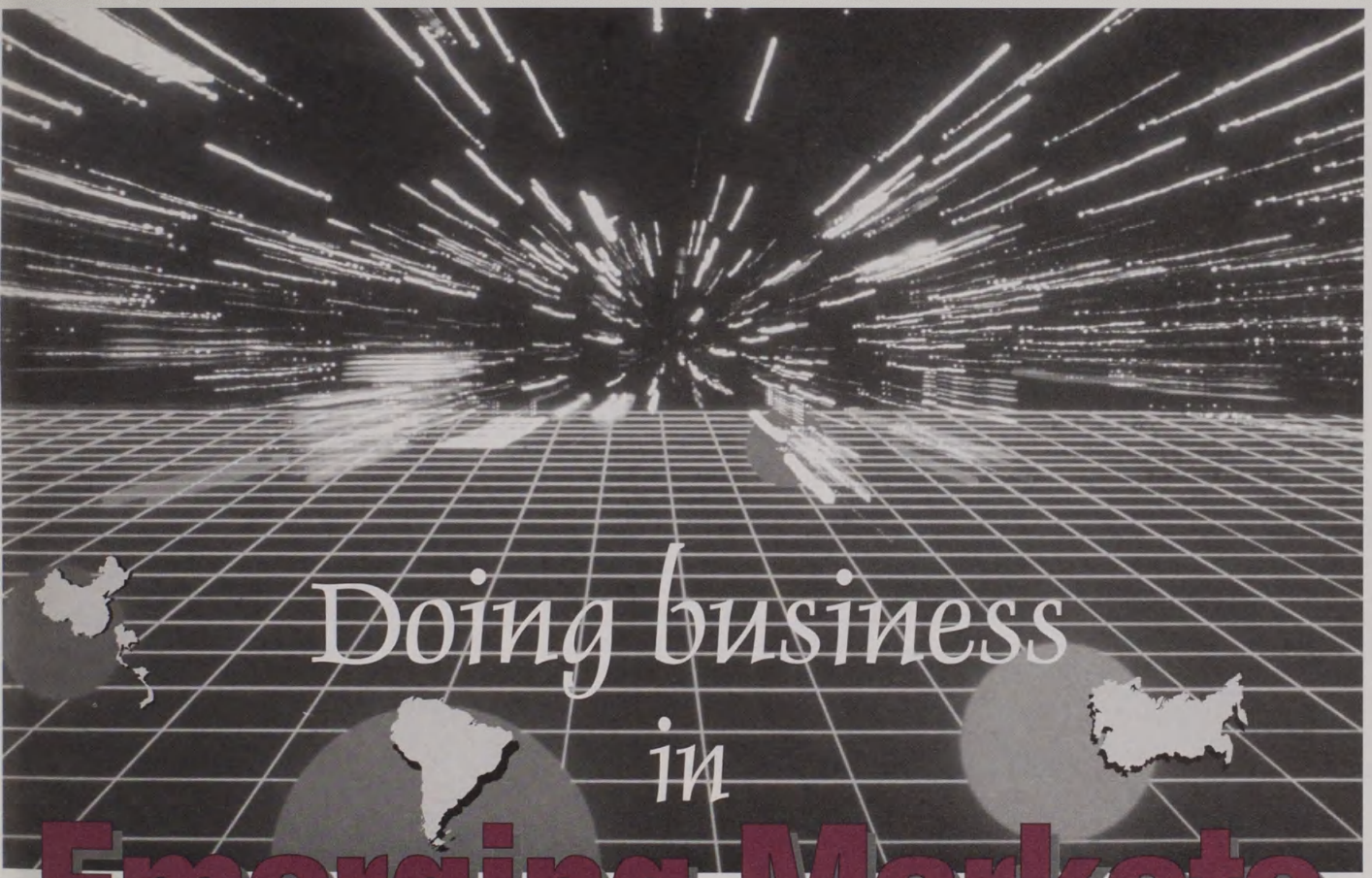
Stephen F. Seninger is director of economic analysis for the Bureau of Business and Economic Research and an associate professor in the Department of Management. Raised in the Midwest, with university teaching experience in Wyoming, Oregon, Utah, and Maryland, he earned a Ph.D. in economics from Washington University in St. Louis. Professor Seninger is in charge of the Bureau's Health Service Industry Research Center for studies on the structure of health care markets and the economic role of health services in the Montana and Pacific Northwest economies. Dr. Seninger's published research covers a wide range of health, economic development, and public policy issues, and he has consulted and advised numerous government agencies and private corporations.



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The Bureau of Business and Economic Research is the research and public service branch of The University of Montana's School of Business Administration.

The Bureau is regularly involved in a wide variety of activities, including economic analysis and forecasting, forest products industry research, and survey research.

The Bureau's Economics Montana forecasting system is an effort to provide public and private decision makers with reliable forecasts and analysis. These state and local area forecasts are the focus of the annual series of Economic Outlook Seminars, cosponsored by the Bureau and respective Chambers of Commerce in Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula.

The Bureau also has available county data packages for all Montana counties. These packages provide up-to-date economic and demographic information developed by the Bureau and are not available elsewhere.

The Montana Poll, a quarterly public opinion poll, questions Montanans about their views on a variety of economic and social issues. The Bureau also conducts contract survey research and offers a random digit dialing program for survey organizations in need of random telephone samples.

The Forest Industries Data Collection System, a census of forest industry firms conducted approximately every five years, provides a large amount of information about raw materials sources and uses in Montana, Idaho, and Wyoming. It is funded by the U.S. Forest Service. The Montana Forest Industries Information System collects quarterly information on the employment and earnings of production workers in the Montana industry. It is cosponsored by the Montana Wood Products Association.

The Bureau's Natural Resource Industry Research Program enables the Bureau to continuously monitor Montana's natural resource industries and improve the public's knowledge of them and their roles in the state and local economies. This program provides easily accessible information about all the natural resource industries. Sponsors are the Plum Creek Timber Company, Montana Wood Products Association, and American Forest Resource Alliance.

Montana Business Quarterly

Bureau of Business & Economic Research
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